THE PALESTINE EXPLORATION FUND.

THE SURVEY OF PALESTINE.

THE following letters and reports tell their own tale. Captain Stewart, as we have already announced in the papers, was obliged, after starting the work, to return home invalided. He is still in England, and it is uncertain whether he will be able to return. Meantime, owing to the ability and zeal of Mr. C. F. Tyrwhitt Drake, aided by the two non-commissioned officers, Sergeant Black and Corporal Armstrong, the Survey is proceeding vigorously.

CAPTAIN STEWART'S LETTERS.

II.

JAFFA, *December 15th*, 1871.

MY DEAR SIR,—My last letter to you was written immediately after our arrival in Palestine, and merely reported our safety so far. On Monday the 13th November, I started for Jerusalem to present the letters of introduction with which I had been supplied from England, and also to ascertain whether the firman had arrived from Constantinople. I joined company with three other Englishmen bound for Jerusalem. We slept Monday night at Ramleh, at the Latin Convent, and were hospitably entertained by the monks. The following morning, started before daybreak, and after a long ride reached Jerusalem about 4 p.m. The country appeared very much dried up after the long summer, and the autumn rains had not yet fallen. The next few days were spent presenting my letters of introduction, which invariably procured for me a friendly greeting. However, my permit to carry on the Survey had not arrived, and hoping that it might in a few days, also being desirous of obtaining a general knowledge of the climate and general features of the country, I made a tour to the Dead Sea and Jordan, returning to Jerusalem on the 19th, and finding that the firman had not yet arrived,

I made application to the Pacha, through our consul, for a temporary permit, but the Governor of Jerusalem did not feel himself at liberty to give me the authorisation, prior to the arrival of the firman. At our consul's request, he telegraphed to Damascus to the Governor-General for his authority to do so, but no reply has been received up to date. Such being the state of affairs, I determined to proceed to work at once, and having purchased tents, and engaged a servant to act as interpreter and caterer, returned to Jaffa on Tuesday the 21st, and on Thursday the 23rd started for Ramleh, near to which place our base line was to be measured. Friday and Saturday were devoted to making the necessary reconnaissance before breaking ground, and I was well pleased to find that good positions for observing from could be found on the top of the Tower of the Forty Martyrs at Ramleh and the top of the Greek Convent at Lydda. Our future plan of operation was decided upon, and all seemed prosperous, when, I regret to say, on Saturday evening, the 25th, I was suddenly seized with an attack of congestion of the liver, which at once placed me on the "sick list." Sunday, I left my tent for the Russian Convent, where I remained till Wednesday the 29th, when finding I made no material progress towards recovery, I sent to Jaffa for a palanquin and came to this station, where I have been kindly attended to by a German doctor belonging to the colony which has sprung up here of late years, and I trust I am now quite recovered, although far from strong. In the meantime the survey has progressed satisfactorily under Sergeant Black.

A "base line" of over four miles has been carefully measured—the several measurements agreeing wonderfully well together—and a survey of the country in the vicinity of Ramleh has been made, and suitable points for the triangulation selected. More could not be done without the co-operation of Mr. Drake or myself. The former has telegraphed to me from Damascus that he is on the point of starting, but I regret to say it is now blowing such a gale of wind that no steamer could lie in the roadstead, and if she could, no boat dare face the surf which is breaking on the beach.

This station of Jaffa is believed to owe its existence to a reef of rocks which lies a few hundred yards from the shore, and affords some shelter to such small craft as can lie inside. There is no other natural harbour along this coast from Alexandria to Haiffa at the foot of Mount Carmel. Dr. Thompson says, in his interesting work entitled "The Land and the Book," "it was in fact the only harbour of any notoriety possessed by the Jews throughout the greater part of their national existence." We read in 2 Chron. ii. 10 that it was then the port of Jerusalem, whither Hiram, king of Tyre, sent timber for the building of the temple at Jerusalem: "And we will cut wood out of Lebanon, as much as thou shalt need: and we will bring it to thee in floats by sea to Joppa, and thou shalt carry it up to Jerusalem."

We read of Joppa or Jaffa again as being the port from which Jonah desired to flee from the presence of the Lord unto Tarshish, when

ordered to go to Nineveh, and cry against it; and finally we learn from the Acts of the Apostles that Joppa was the habitation of a certain disciple named Tabitha, which by interpretation is called Dorcas; and hither the Apostle Peter came from Lydda, and restored her to life afterwards. He tarried many days in Joppa with one Simon a tanner. It is a curious fact, and exemplifies the changelessness of Eastern life, that the trade of tanning is extensively carried on at Jaffa to this day.

In modern times Jaffa has obtained an unhappy notoriety in connection with Bonaparte and the massacre of unarmed prisoners. The modern town is believed not to be more than 100 years old; it is picturesquely situated on a headland, the houses rising in terraces from the water's edge; it is entirely surrounded by a wall and ditch, to which the term fortifications is given, but, such as they are, they are falling rapidly to decay. Surrounding Jaffa are the orange gardens for which it is justly extolled, and which are a considerable source of wealth to the owners. The annual value of fruits grown in Jaffa is said to be £10,000. I have been greatly struck at times when riding along this coast to see vines and fig-trees growing apparently in barren sand which abounds here; either there is a supply of water beneath the surface sufficient to nourish the roots, or, what I think is more probable, the sand is not more than a foot or two in depth, and the roots have been laid in good soil beneath. About half a mile from Jaffa is situated the German colony which has sprung into existence in the last few years: this colony, like most others, has a history not uneventful, which I hope to send you at a future date.

Mediterranean Hotel, Jerusalem, *December 29th.*

So far I wrote from Jaffa, on one of the few days I was able to do anything, and now I continue my narrative.

On Sunday the 17th Mr. Drake arrived from Damascus, and as I then felt strong enough to ride to Jerusalem, we both started Monday the 18th, sleeping at Ramleh the same night. Following morning again in the saddle, the day bitter cold, with a keen wind, raw and threatening rain; reached Jerusalem same afternoon, and Dr. Chaplin called on me in the evening, and seemed to think I had not much amiss. Next day he made a careful inspection of my state, and I was again thrown back on the sick list, and have not been out of my room since. To-day I am greatly better, and hope another week will see me out and about. I write this long account of myself to account for the absence of letters. I have been quite unable to write before this. Drake left Jerusalem on Wednesday last for Ramleh, and the triangulation of the country is in progress. My sickness has undoubtedly been a certain cause of delay in the progress, but even had I been quite well, no great progress could have been made owing to the very wet and rough weather we have had almost incessantly. I am glad to say the firman has arrived, and the

Governor has prepared a suitable local order in conformity therewith, enjoining all sheikhs and others in authority to give us all assistance in carrying out the work and to protect our station posts.

R. W. STEWART.

JERUSALEM, 23*rd Jan*

Excuse my writing to you in pencil, but I am forbidden to sit up for any length of time. I enclose herewith the meteorological reports up to 31st Dec. They have been most carefully registered and tabulated in strict accordance with Mr. Glaisher's form; indeed I had them copied on to foreign postage paper from his form for convenience of transmission. I wish I had known more of the country when I first was taken ill, as I should certainly have gone to Beyrout instead of stopping at Jaffa, and had good English medical attendance. I wish you would inform the Committee that I am most happy to report that Sergeant Black appears competent to carry out any portion of the Survey unaided, and has shown a most praiseworthy zeal, discretion, and ability in many respects since my illness, so that I am able to leave the work to him with *perfect confidence*. The corporal also is a most happy selection. I congratulate myself on having two such men, conscientious and upright, as far as I can judge, in all respects.

R. W. STEWART.

Jan. 4th

P.S. Dr. Chaplin has ordered me to England, as he finds there is no prospect of recovery here. I go *viâ* Southampton, handing over everything to Drake.

MR. TYRWHITT DRAKE'S REPORTS.

I.

CAMP, BEYROUT NUBA, *Feb.* 1, 1872.

AT the request of Captain Stewart, R.E., now at Beyrout, I beg to forward a report of the Survey from the time I joined it up to the present date.

On December 14 I hurriedly left Damascus, having received a telegram from Captain Stewart stating that he was ill at Jaffa. I reached that place on the 17th, and the next day accompanied him to Jerusalem, where he placed himself in the hands of Dr. Chaplin. On the 30th I joined Sergeant Black and Corporal Armstrong at Ramleh, and on the following Monday (January 1, 1872) we began to extend the work.

Owing to no lack of energy on the part of the non-commissioned officers, of whose zeal and accuracy I cannot speak too highly, but simply to the fact of their being ignorant of Arabic, and the want of

some person to attend to the nomenclature and facilitate dealings with the natives, they had been able up to this point to do little more than measure the base line and sketch in the country in the immediate neighbourhood of Ramleh and Lidd.

The accuracy of this work is most satisfactory, as is the case with all that has been done up to date, and augurs well for future success.

The following is the report of Sergeant Black:—

"RAMLEH, 31*st January*, 1872.

"Up to the 31st December a base line had been measured in the plain south-east of Lydda and Ramleh, but as the trigonometrical observations could not up to that time be commenced a survey was made of the country surrounding Ramleh to the extent of twenty square miles, which was ready to be transferred to its proper place on the plan as soon as a sufficient number of points should be fixed to enable this to be done. During January poles and cairns were erected, and the triangulation extended over about 100 square miles of country, and the detail was filled in on sixty square miles, in addition to the twenty already mentioned, making in all eighty square miles.

"The triangulation included Jaffa, and the astronomical observations taken at Ramleh agreed excellently with those of the Admiralty survey taken at Jaffa, when the two places were connected by means of the trigonometrical distances and a meridian found at one of the principal stations. The points were then 'scored' on the plans, and the district of country which had been surveyed was transferred to the plan and drawn.

"The chaining of the base line was checked by angles taken at an intermediate point on it, and from a portion of the base a similar result was produced as from its whole length, when the length of a line was calculated from each. The triangulation was carried away from the base lines in such a manner that very large and well-shaped triangles were very shortly obtained. A diagram showing the general plan of the triangulation up to this time is attached, but a great many prominent points, which are not shown on it, were fixed within the area by observations, and made use of in filling in the detail.

"A connection was made with a bench mark at Jimsu, on the line of levels from the Mediterranean to the Dead Sea, thus giving a means of finding the altitudes of the several trigonometrical stations from the vertical angles.

"THOS. BLACK, Sergeant, R.E."

From January 1—20 the time was employed in setting up cairns and poles at trigonometrical stations, observing from them, and sketching in the intervening and neighbouring country. In that interval sixty square miles have been filled in, and since laid down on the large sheets. The whole amount thus completed, including the twenty square miles up to December 31, makes a total of eighty square miles.

The work of getting the names correctly is somewhat difficult. In the desert a wady will generally have but one name from its head to its termination or junction with a more important one. In these well-populated districts a wady changes its name half-a-dozen times in as many miles, taking a new one in the territory of each village that it passes through. The fear of the fellahin that we have secret designs of re-conquering the country is a fruitful source of difficulty. This got over, remains the crass stupidity which cannot give a direct answer to a simple question, the exact object of which it does not understand; for why should a Frank wish to know the name of an insignificant wady or hill in their land? The following dialogue will show that denseness is not peculiar to the traditional Chawbacon. I ride up to a man ploughing in a wady, and say, "What do you call this wady?"

"Which wady? Where?"

"Why, the one we are in; here."

"What do you want to know for?"

"To write it on the map," &c.

"Oh, this is called El Wad" (the valley).

"Nothing else?"

"No."

"Well, the men here must be illiterate donkeys!" (turning to the man) "Why, when you go home and say that you have been ploughing in the 'Wad,' perhaps they'll think that you've been on the other side of that hill yonder."

(In a tone of pique) "Oh, no! I should say I've been in W. Serár."

"Then you call this Wady Serár?"

"Yes, that's what we call it."

A little sarcasm is a weapon that seldom, if ever, fails to penetrate the Syrian perceptions, for the native, with all his ignorance and stupidity, is essentially vain, and by this means many a point may be gained or bit of information acquired which no amount of bullying, no length of entreaties, would serve to accomplish.

I have now personally verified every name put down in the map as far as we have gone. The names in Van de Velde are frequently ill-spelt and sometimes radically wrong, for instance Kefr 'Ana is written K. 'Auna; Nyáneh is put as Nâámeh; Saidon for Sáydún, &c., &c.

I will now lay before you notes on certain sites which I believe not to have been hitherto fully identified. I hope to bring several others to your notice shortly, but am desirous of gaining further proofs before submitting them to criticism.

Hadid.—This town is mentioned* in conjunction with Lod (Lidd) and

* Neh. vii. 37: "The children of Lod, Hadid, and Ono, seven hundred twenty, and one." Neh. xi. 34, 35: "Hadid, Zeboim, Neballat, Lod, and Ono, the valley of craftsmen." Ezra ii. 33: "The children of Lod, Hadid, and Ono, seven hundred twenty and five."

Ono (Kefr 'Ana), and in chapter xi. 34, 35, with Lod and Neballat (Bayt Nebala), and in Ezra ii. 33 it is coupled, as in the first quoted passage, with Lod and Ono. Hence we must look for it in the neighbourhood of these places.

In 1 Macc. xii. 38 Adida is a town situated on the Shephelah, or low hills between the mountains and the plain; Eusebius states it to be to the east of Diospolis (Lydda), and this answers well to the position of the modern Hadítheh. This place, with Bayt Nebala, Kefr 'Ana, and Lidd, form a quadrilateral of which the sides measure $1\frac{1}{2}$, 6, $5\frac{1}{4}$, and $3\frac{1}{8}$ miles respectively. No village of importance at present exists within this space. The village of Hadítheh is small, and only occupies a portion of a large circular Tell, the top of which has been artificially levelled, and evidently has been the site of an old and important town. The grey earth, broken pottery, and fragments of squared stones, are enough to prove this, but it is unmistakable when we see the number of quarries, rock-hewn tombs, and stone chambers in the vicinity.

The Tell occupies a most commanding position on a spur of the Shephelah running between Wady Serár and the plain.*

Jehud.—A town of Dan, mentioned in Josh. xix. 45 in conjunction with the following. The Arabic name of the present village, *El* Yehudíyeh, seems undoubtedly to be the old name, but just so much changed as, which is very frequently the case, to bear a meaning in Arabic. It is now a large and flourishing village of 800 to 1000 inhabitants.

The Makam of Nebi Húdah (the patriarch Judah) is here held in great reverence. A Makam is a dedicatory mosque or chapel, usually containing a cenotaph, and erected by some pious person in consequence of a dream or in fulfilment of a vow; it is used as a mosque. I may here observe that at a village called Nebi Danián (Van de Velde calls it simply Danîyal) is the Makam of Nebi Dan—the prophet or patriarch Dan. This I found out by asking the shaykh, who was Nebi Danián? "It is not Nebi Danián," he replied, "but Nebi Dan, the son of Sidna Yákúb, and the Makam of his brother Húdah is yonder" (pointing to El Yehudíyeh), "and his brothers Shimown and Yamín (Simeon and Benjamin) are near Kalkílieh, and it is only by a vulgar corruption that the village is called N. Danián." It is curious to find the Hebrew form, "Shimown," preserved and used instead of the Arabic, Sim'án.

Bene Berak.—Eusebius locates this place at Βαρηκά, near Azotus, but this is improbable, as in Josh. xix. 45, 46 we find "Jehud and Bene-Berak and Gathrimmon and Rakkon with the border before Japho;" this puts it near Yafa, and not near Ashdod. The village of Ibn Ibrak answers to it in every way; even the alliteration has been kept in the Arabic. The fact, too, that Bene-Berak is mentioned between Jehud

* Josh. xix. 45, 46: "And Jehud, and Bene-berak, and Gath-rimmon, and Me-jarkon, and Rakkon, with the border before Japho."

and Japho, strengthens the supposition, for that is its geographical position.

Gezer.—A border town of Ephraim, from which the Canaanites were not driven out:* it was afterwards given to the Levites.† Destroyed by Pharaoh, it was rebuilt by his son-in-law Solomon.‡ Battles with the Philistines are recorded as having taken place at it, and according to the marginal reading,§ it is made the same as Gob.

I feel inclined to identify *Tell Jezar* with this Gezer. Eusebius mentions a village of Gazara, distant four miles from Nicopolis (Emmaus, now Amwas), and northwards from it, *ἐν βορείοις*. Now Tell Jezar lies W.N.W. of Amwas, and is a little more than four miles distant. This answers to the somewhat loose description, "*ἐν βορείοις*."

The tomb of a shaykh named Mohammad-el-jezari, or more commonly "El jezari," simply, makes a conspicuous landmark on the summit of a long, high Tell, at the southern end of which lies the village of Abu Shushah.

This Tell is somewhat in the shape of a figure 8, being narrowest in the middle. The eastern side is scarped and faced with large roughly-hewn stones in steps, many of which are still *in situ;* to the west it is terraced with three steep banks. The whole of the hill is strewn with broken stones and countless fragments of pottery, some of good red clay, smooth and bright coloured, much resembling Samian ware: amongst these are scattered a few morsels of glass. I observed, too, a few rock-hewn tombs and several oil-presses in the immediate neighbourhood, and a large rock-hewn cistern lined with a rubble wall coated with cement, on the top of the ridge. There is a very large quarry-cave on an adjacent hill; it is called Magharet Hejjyhah. The natives have a tradition that the city of the Lord Noah stood on Tell Jezar at the time of the deluge. There can be no doubt that a large and important town formerly stood here. At the base of the ridge, between it and Kubab, is a well, or rather spring, named 'Ain Yerdi, which also has traces of ruins near it.

In various places I have observed rock-hewn tombs. At Dayr Tarif I found them of a pattern which I have never seen except in North Syria (in Jebel el Zowi, between Hamah and Aleppo), viz., an oblong opening, originally covered with a slab, sunk in the flat surface of a

* Josh. xvi. 3, 10: "And goeth down westward to the coast of Japhleti, unto the coast of Beth-horon the nether, and to Gezer: and the goings out thereof are at the sea. . . . And they drave not out the Canaanites that dwelt in Gezer."

† Josh. xxi. 21: "For they gave them Shechem . . . . and Gezer with her suburbs."

‡ 1 Kings xix. 16, 17: "Pharaoh king of Egypt had gone up and taken Gezer and burned it with fire . . . . and Solomon built Gezer."

§ 1 Chron. xx. 4: "It came to pass after this that there arose war at Gezer with the Philistines."

rock, with an arched-over *loculus* on either side, for the reception of the body: the whole depth varies from three to six feet, those at Dayr Tarif being about three and a half feet. Excavated cisterns, sometimes of great size, and usually shaped like beehives or inverted funnels, are of frequent occurrence. The subterraneous storechambers are used to the present day by the natives, and are called, as in Morocco, metamír (pl. of matamora), but in Syria, jubb. The cisterns and graves at Dayr Tarif are called nawamis (pl. of namús, lit. a mosquito), which is the name given by the Bedawin in Sinai to the primæval cairns, tombs, and dwellings found there.

In many places on the plain there are tanks above ground, solidly built and lined with Roman cement; these have usually a fine circular well beside them, either cut through the rock or lined with well-hewn stones, according to the nature of the ground. Some of these tanks, which are generally about thirty feet square and six or seven deep, are broken up seemingly by the subsidence of the soil beneath them. In more than one instance I have found a whole side fallen *en masse* and lying unbroken on the ground, so hard is the cement. Some of these tanks are used to the present day. The wells being deep, a horse or mule is attached to the end of a rope, which works over a roller, and walking away from the well draws up the leathern bucket attached to the other end. Sufficient water is thus drawn in an hour or two to quench the thirst of the flocks and herds to whom the right of drinking at the well belongs. The shepherds, as they come up, bale out the water by degrees into the small trough from which the cattle drink, and thus much trouble and waste is avoided.

Enclosed* are traces of the ground plan, sketches of the exterior, of the doorway—which is very remarkable—and of the cornices, &c., which I made a short time ago of a building at Mezayra'a, some ten miles north-east of Ramleh. It is built of large, somewhat roughly squared blocks of limestone, the interstices being filled up with small pieces of stone and very hard cement. The staircase, which formerly led to the roof, is now broken away, and with some difficulty I made my way up the wall, lizard fashion. I found the roof, which inside consists of huge slabs supported on arches, in style similar to the Hauran, 'Alah, and Jebel el Zowi architecture, to be covered outside with a thick layer of cement, absolutely as perfect as the day it was laid down. So hard was it that I found it no easy task to break off a fragment. The cement throughout is of the same durability, but that on the roof is mixed with pounded brick. The only ornamentation beyond the cornices is to be found in the acanthus capitals to the pillars in front of the portico; these are much defaced. No inscription was to be found.

The peculiarly well preserved state of the building renders it interesting, but it will prove much more so if my first idea, fortified by the

* These are at the Office of the Fund, 9, Pall Mall East. See also Photo. No. 110.

opinion of Dr. Ginsburg—who, however, only saw my plan and sketches, and from these alone was of course unwilling to give a decided judgment at a moment's notice—prove true, namely, that it is a synagogue.

I hope, as soon as Captain Stewart be well enough to rejoin us, to have some spare time to devote to the natural history and geology, but at present my time is so fully occupied that I can do but little towards making collections.

I have observed one point in the geology worth noting, viz., an outbreak of basalt—very friable from exposure—between the villages of Abu Shushah and Sýdún. I am not aware that any basalt has ever been observed to the west of the main range so far southward.

The statistics of population are very difficult to obtain in this country; there is no census, and the people have a dislike to their numbers being known. If a community be small it fears oppression; if rich, extortion. Again, if the numbers of men can be approximated, it is only by guess work that the women and children can be reckoned. It depends much upon the wealth of a place whether a man is able to marry more than one wife; consequently, in a rich village the ratio of women to men will be larger than in a poor place.

The approximate population of Ramleh is

Moslems.....	800 men,	? houses	= about	2000	souls.
Latin Catholics.....	15 „	6 „	= „	40	„
Armenians.....	? „	2 „	= „	12	„
Greek Orthodox	200 „	50 „	= „	500	„
(or 300 with boys)					
Monks in the Armenian, Latin, and Greek convents	varies		= „	30	„
Jews	2			2	„
				2284	total.

The Moslems have four mosques, more or less used, as well as the old Christian church, which is their principal place of worship. This building has been thoroughly described by M. le Comte de Vogüé. It is oddly oriented, the run of the walls being (true bearing) 111° 20′, or 21° 20′ south of east. The Christians have each their places of worship in their respective convents.

C. F. Tyrwhitt Drake.

Note.—Van de Velde (see map of Palestine and Memoirs) also identifies Hadid with Haditheh, Bene-berek with Ibn Ibrak, and Jehud with El Yehudíyeh. The Gezer of Josh. xii. 12 he identifies (Memoir, p. 314) with Yâsûr.

II.

P. E. F. Camp, Bayt Nuba, *Feb.*, 1872.

The progress of the Survey in February is less than that of the preceding month. Still, however, rather more than fifty square miles have been sketched in, while the trigonometrical stations cover a much greater area. The diminution of actual work done is due to two unavoidable causes. Firstly, the rain, which has been unusually heavy, having fallen on no less than seventeen days in the month; we have nevertheless set up trigonometrical stations at various points westward of a line drawn from a mile north-east of Bayt 'Ur el Foka southwards to Saris, and satisfactory observations have been taken from them. Secondly, the fact that we have now reached the edge of the real mountain district which forms the backbone of the country. The difficulty of traversing these ranges will be understood when I say that a distance of about three and a half miles in a direct line occupied us more than three and a half hours riding. This is owing to the extreme abruptness of the wadies, which sometimes reach a depth of 1,000 feet at no great distance below the watershed. Rough travelling of this kind is not at all beneficial to a delicate instrument like a theodolite; but as it can be by no means avoided, we try to make the best of it.

The *Shephelah*, or hill country lying between the mountains and the plain, presents none of these difficulties, as the valleys are seldom more than 300 feet in depth, and the slopes are much more gradual.

This word "Shephelah" has been wrongly rendered "plain" and "valley" in the A. V. (*e.g.*, Zech. vii. 7 and Josh. xv. 33). Eusebius says that the country about Eleutheropolis was still called Shephelah in his time. It is in fact the district of rolling hills situated as above mentioned, and forms a most marked feature in the physical geography of the country. It is not, however, so far as I am aware, shown on any map otherwise than as a series of spurs or shoulders running down from the main range, which in reality it is not.

It is very important that these natural features should be well understood and carefully borne in mind as most important in helping to clear up the obscurity in which the geography of the Old Testament is now enveloped. These distinctions of mountain, hill, and plain are more than once mentioned in the Talmud (cf. tract Shevith, &c.) Rabbi Jochanan says that from Beth-horon to Emmaus is mountain (הר); from Emmaus to Lydda, hill (שמלה) and from Lydda to the sea, plain (עמק), which is perfectly correct, as Amwas is situated at the base of a spur from the mountains, and the hills extend to within a very short distance of Lidd, beyond which is the plain.

This will assist us in determining the border of Ephraim near

which we are now camped. In Josh. xvi. 5–10* we are told that it came to Beth-horon the Upper, and then went out towards the sea to Michmethah (which in ch. xvii. 7 we learn to have been in the neighbourhood of Shechem). Thus we see that it did not extend to the sea. This is further confirmed by the statement of Josephus, Antiq. v. 1, where he says that the territory of Ephraim "extended to the great plain." From Josh. xvi. 8 it might seem that their land reached to the sea-coast, but from the following verse and xvii. 9 it would rather seem that there were only some separate cities assigned to Ephraim in the land of Manasseh, which lay on the coast. This might explain the expression (xvii. 10), "And they met together in Asher on the north, and Issachar on the east," which would be the case if the border line of Ephraim did not run to the coast, for then the boundaries of the four tribes might meet in one place. The expressions in Joshua are so obscure that the exact boundary must be more or less a conjecture; but this solution seems to me quite possible without straining any point. Our survey will doubtless throw light on the situation of the "brook Kanah," for judging by what I already know, nothing can be more incorrect than the watersheds and valleys as laid down on the best existing maps of Palestine. They seem, indeed, to have been put in at the map engraver's own sweet will, so as not to interfere with the names of the villages, which, as might be expected, are generally more approximately correct.

In Josh. xix. 42, 43, two towns are mentioned, Ajalon and Elon. In the Hebrew they are both spelt אילון, and differ only in the pointing. In this passage the former is mentioned in conjunction with Shaalabin (שעלבין, Sept. Σαλαμίν), and in 1 Kings iv. 9. Elon-beth-Hannan (אילון בית חנן) is also mentioned as being in the same district. The two names are again in conjunction in Judges i. 35. From these passages we may perhaps conclude that there were two towns called אילון, as there were two Beth-horons. In this case Yalo † would answer to one, and Bayt 'Anan to the Beth-hanan. Yalo is situated on

* "And the border of the children of Ephraim according to their families was thus: even the border of their inheritance on the east side was Ataroth-addar, unto Beth-horon the upper; and the border went out toward the sea to Michmethah on the north side; and the border went about eastward unto Taanath-shiloh, and passed by it on the east to Janohah: and it went down from Janohah to Ataroth, and to Naarath, and came to Jericho, and went out at Jordan. The border went out from Tappuah westward unto the river Kanah; and the goings out thereof were at the sea. This is the inheritance of the tribe of the children of Ephraim by their families. And the separate cities for the children of Ephraim were among the inheritance of the children of Manasseh, all the cities with their villages. And they drave not out the Canaanites that dwelt in Gezer: but the Canaanites dwell among the Ephraimites unto this day, and serve under tribute."

† See Smith's *Dict. of the Bible*, "Aijalon."

the north side of the same spur on whose western slopes Amwas lies, while Bayt 'Anan is in the mountain six miles distant.

Whether this theory be accepted or not, it is generally admitted that the village of Yalo represents Ajalon. Hieronymus says that the Jews place it at the second milestone from Nicopolis (Amwas) on the road to Ælia (Jerusalem), which answers to Yalo. Eusebius, however, describes it as a village three miles east of Bethel; this, of course, cannot be the Ajalon of Joshua.

Now Shaalabin, as I have already shown, is mentioned in conjunction with Ajalon, and must therefore be looked for in the same neighbourhood. Hieronymus seems to have identified it, for in his commentary on Ezek. xlviii., when mentioning the division of Dan, he has these words, ". . . . . ubi sunt turres Ailon et Selebi et Emmaus," which I am inclined to translate "Yalo, Selbit, and Amwas." The ruins of Selbit occupy a commanding position on the north of Wady Selman (Wady Soleiman of the maps), and cover a considerable space of ground. They are distant two and a half miles from Yalo.

In the Septuagint (Josh. xv. 60) the verse said to be interpolated contains the names of Κουλον and Καρεμ, which have been identified with Kolonia and 'Ain Karem. Θωβης seems to me to answer to Soba. The reading Soris or Sores, which is found in some MSS., may have arisen from confusing it with Σαρις (Josephus, Antiq. vi. 14), which seems to be the same as Saris, a village a short distance north-east of Kesla (which has been identified with Chesalon), a town on the north border of Judah. If this be the case, the boundary line probably went along the wady, which, according to the maps, runs down to 'Ain el Shems (Beth-shemesh). I shall determine this as soon as possible.

Near Bayt 'Anam, on a hill-top, are some heaps of ruins called Jebí'a, "the little Jeba." In Josh. xviii. 24, 25 and xxi. 17, Gibeon (גִּבְעוֹן) and Geba (גבע) are mentioned as two towns of Benjamin. In 1 Chron. xiv. 16* we find the Philistines smitten by David from Gibeon to Gezer, but in the parallel passage of 2 Sam. v. 25† we find it is from Geba to Gezer. In 1 Sam. xiii. 2, 3 we read that Jonathan had 1,000 men with him in Gibeah of Benjamin, and smote the Philistines in Geba. Josephus too (Antiq. vi. 7 and vii. 10) seems to refer to two places, which he calls Γαβάω, and Eusebius places Geba on the road from Jerusalem to Nicopolis (Amwas) at the seventh milestone. The direct road to Jerusalem from Amwas would be past Jebí'a, and there is still a considerable traffic along it, though the carriage road to the south has rendered it somewhat less frequented.

From these quotations we may conclude that there was a Geba of

* "David therefore did as God commanded him: and they smote the host of the Philistines from Gibeon even to Gazer."

† "And David did so, as the Lord had commanded him; and smote the Philistines from Geba until thou come to Gazer."

the Gibeonites in the territory of Benjamin other than the Gibeah now El Jib. Jebí'a, too, is at no great distance from Kefírch—which has been identified with Chephirah—another city of the Gibeonites. Hence it seems not unreasonable to conclude that Jebí'a is the Arabic form of Geb'a.

In Benjamin there were several cities of a nearly similar name; for instance גבע (Josh. xxi. 17), גבעה (Judg. xix. 13), גבעת (Josh. xviii. 28), גבעון (Josh. xxi. 17), as well as the town גבתון of Dan (Josh. xix. 44).

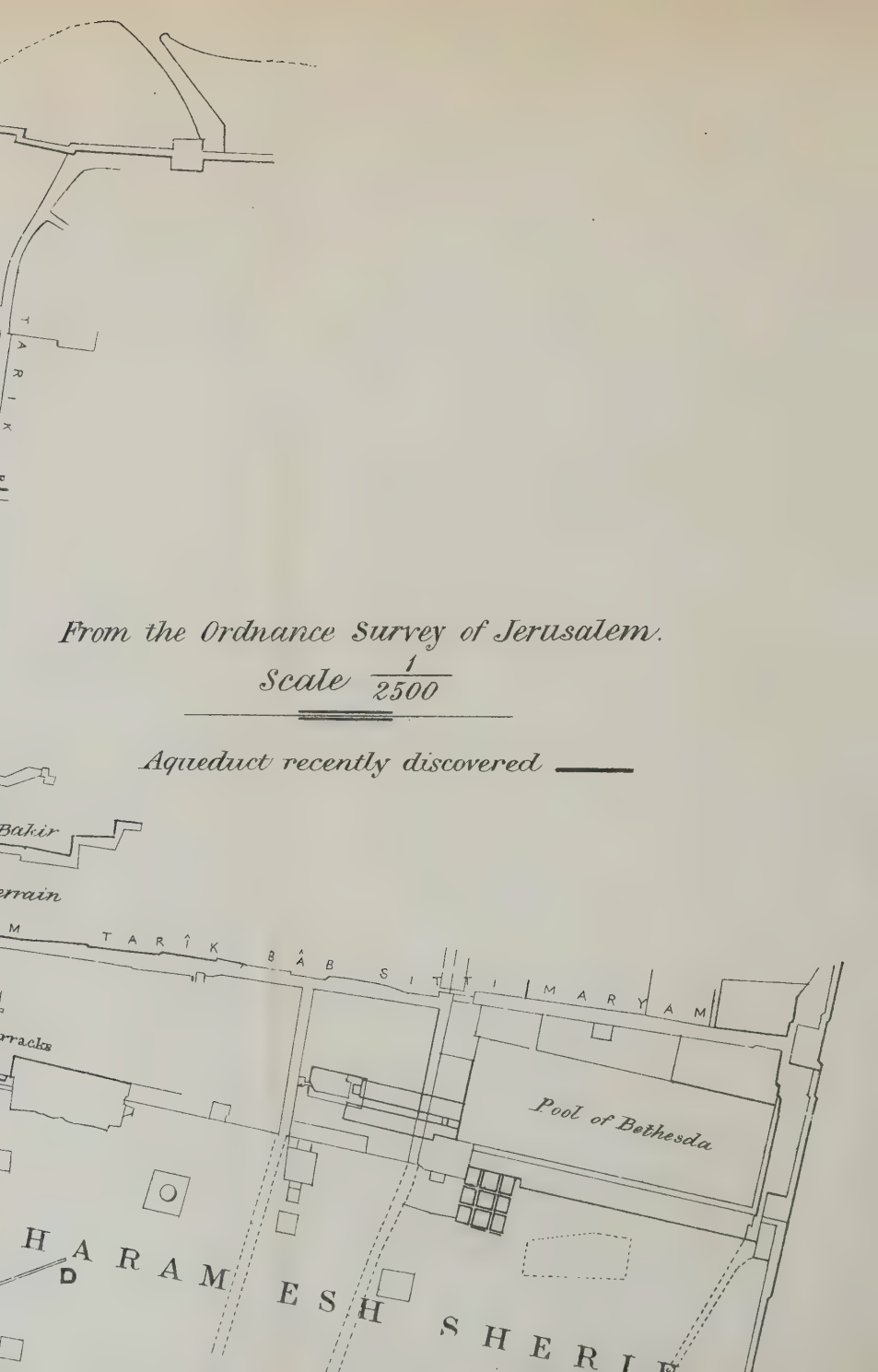
It may be urged that Bayt 'Anan, lying half a mile to the east of Jebí'a, would preclude it from belonging to Dan, as Elon-beth-Hannan, but we must remember that the boundary of Ephraim was at Upper Beth-horon, and consequently Dan extended up to that point. If this be so, it is possible that Wády Ibrayj, or, as it is called higher up, Wády Miska, was the boundary between Dan and Benjamin.

I have discovered what seems to be undoubtedly a cromlech in the vicinity of sepulchral (?) cairns. This cromlech, the first that I have ever seen in Palestine, consists of a somewhat triangular stone 6ft. 6in. high above ground, 9ft. broad at the base, and from 2ft. to 3ft. in thickness. Its front faces north-north-east, and 12ft. behind it is a smaller stone of somewhat the same form. The cairns lie to the north and east, and to the north is a stone about 3½ft. high seemingly, as is often the case in early stone monuments of phallic import. Two other cairns or barrows that I have found run also north-north-east. Of these I shall write further in a future report.

Since I last wrote I have had a dispute with the fellahin of this place, and have been obliged to teach them a lesson which has had a most salutary effect. The affair might have turned out seriously had I not taken very prompt measures, but as it is I am glad that it occurred. We now stand on a much better footing than formerly, and the natives are beginning to understand that, though we are perfectly willing to treat them well so long as they treat us in the same way, yet directly they annoy us, that they will get the worst of it. The men of this village began quarrelling with the servants the very day that we camped here, but the moment I came to the spot they professed themselves only too ready to do all that I wanted. A few days later, however, they abused and even struck one of our muleteers for serving Christians, which they said was a disgrace to Moslems; the next day they tried to beat Habib, a Lebanon Christian, who has been in my service for some time. On hearing this I sent off a letter to Jerusalem, and on the following day some soldiers arrived. Meanwhile the villagers had come to beg my pardon, but the only comfort they received from me was the assurance that, judged by their own religion, they had proved themselves kafirs (infidels) for having called other men so without reason.

On the arrival of the soldiers I demanded that the shaykh and elders should write and seal a paper expressing contrition for what they had done, and pledging themselves that it should not be repeated. This they refused to do, so the soldiers, acting under orders from Jerusalem,

Pit
Entrance to Caverns
Caverns
A
B
H
Caverns recently discovered
Damascus Gate
TARÎK BAB AL ÁMÛD
TARÎK ASH SHEIKH
TARÎK BAB AL AMÛD
AKABAT AL KASÎLE
RIHAN
Austrian Hospice
F
Convent of Sisters of Sion
TARÎK AS SARAIA
Via Dolorosa
C


From the Ordnance Survey of Jerusalem.
Scale 1/2500
Aqueduct recently discovered
Bakir
errain
M
T A R Î K
B Â B
S T I
M A R Y A M
rracks
Pool of Bethesda
H A R A M
D
E S H
S H E R I F

took four of them off as prisoners, but hardly had they started on their road when the rest of the villagers repented and called them back to receive the required guarantee.

Since then they have been on their best behaviour, and we are now on very good terms, especially as I have cured two or three of them of ophthalmia. This has raised my reputation as a hakím to an unpleasant pitch, and I am constantly besieged by applicants, even from the neighbouring villages, for medicines to cure all kinds of diseases—from blindness to palsy. Now, however, as on former travels, I find that the distribution of a little medicine facilitates dealings with the people, though I fear that it seldom produces anything like real gratitude.

Two of our cairns have been knocked down, but I immediately sent soldiers to make the men in whose land they were built reconstruct them, and I hope that before long these ignorant savages will understand that we have no intention of injuring them, and will not offer us these obstructions, which arise simply from their ignorance and superstition. Kindness from a person whom they know to have the power of compelling them, will be appreciated: kindness from one whose strength they either are ignorant of or doubt is looked upon as cowardice, and as such taken advantage of.

Whenever we have had occasion to visit the villages and set up poles, &c., on the houses, there has been no difficulty whatever, and in my intercourse with the people I have had no trouble—other than that arising from their douseness of comprehension—in obtaining what information I required.

I am glad to say that the cold and wet, though much interfering with our work, has not at at all affected the health of any of the party.

CHARLES F. TYRWHITT DRAKE, F.R.G.S.

RECENT DISCOVERIES AT JERUSALEM.

BY CAPTAIN WILSON.

MR. SCHICK, in a letter dated Jerusalem, December 15th, 1871, gives the following interesting details of an aqueduct recently discovered on the hill commonly known as Bezetha. The position of the aqueduct is shown on the accompanying lithograph, and on reference to this it will be seen that it runs from a point near the Damascus Gate to the souterrain at the Convent of the Sisters of Zion, and so connects with the rock-hewn passage explored by Captain Warren, R.E. (see his Letters, No. XIV., and "Recovery of Jerusalem," p. 198). According to Mr. Schick, the aqueduct is from two and a half to three feet wide, and so high that a man can walk through it easily, the height rising, occasionally, to twelve feet and more; it is partly hewn out of the rock, and partly of masonry, the channel being covered by a vault in which numerous openings, now closed by rubbish, were noticed. The aqueduct

crossed the deep pit east of the Damascus Gate, immediately without the city wall, and part of it is visible in the scarped face of the rock on its northern side, near the entrance to the great cavern, or "cotton grotto;" it is therefore older than this pit. In building the present city wall, which stands on old foundations, the upper portion of the aqueduct was destroyed.

Mr. Schick's discovery is of great importance, and it is much to be regretted that he was not able to follow it up, and trace the source from which the aqueduct derived its supply of water; the Palestine Fund has, however, taken the matter in hand, and we may hope during the course of the year to obtain full information. Meanwhile the following suggestions are offered as to the age of the aqueduct and the object for which it was built.

The deep pit east of the Damascus Gate, mentioned above, is hewn out of the solid rock, and now forms part of the ditch which protects the north wall of the city; it is connected with the great caverns or quarries from which it is generally supposed a large proportion of the stone used by Herod in rebuilding the Temple was taken, and is in all probability the original entrance to them. When we remember the terraced limestone formation of Jerusalem, and the gentle even slope at which the strata dip towards the Temple area, a glance at the map shows at once that great facilities existed for running down immense blocks of stone from the mouth of the quarries near the Damascus Gate to their position in the Temple wall. It has indeed been suggested that the mouth of the quarries was at their southern end, near the Austrian Consulate, and if this be the case, the present northern entrance may possibly be of later date than the reign of Herod, but no such opening has yet been discovered. At present, therefore, I think we may assume that the pit east of the Damascus Gate was made during the reign of Herod, and that the aqueduct, which was partly destroyed by the excavation, was of still older date, possibly the work of Hezekiah, who did so much for the improvement of the water supply of Jerusalem.

Following the course of the aqueduct southwards, we find that it runs into the souterrain at the Convent of the Sisters of Zion, and as there is a peculiarity in the formation of this souterrain which does not appear to have been previously noticed, it will be necessary to say a few words with respect to it.

In one of Captain Warren's letters (No. XVI. See also "Recovery of Jerusalem," p. 224) he points out the probable existence of a ditch in the Haram area, a little north of the platform on which the Dome of the Rock stands. The sides of this ditch, which are indicated on the Ordnance Survey plan of the Haram (marked C D on lithograph), are not, as might have been expected, parallel to the northern and southern walls of the enclosure, but perpendicular to a line representing the general direction of the ridge; the reason apparently being that the quantity of rock to be excavated in forming a ditch would be less on

this line than on any other. Turning again to the souterrain, we find that the cuttings in the rock at the north and south ends (F and E on plan) are also perpendicular to the general direction of the hill and parallel to the sides of the ditch in the Haram area. (See woodcut.) This leads me to believe that the souterrain was originally a ditch, possibly that separating the Tower of Antonia from Bezetha, and that in making it the aqueduct was cut through a second time. At a later period it may have been converted into the existing twin pools of the souterrain for the purpose of collecting the rainfall on Bezetha, which would be partly conveyed to it by that portion of the aqueduct left untouched.

South of the souterrain, as we learn from a letter of Dr. Chaplin's (*Quarterly Statement*, No. VII.), the aqueduct runs a few yards beyond the point reached by Captain Warren, and then, turning sharply to the east, terminates abruptly on a massive stone wall similar in character to that at the Wailing Place, and in the same line with it. This seems to show that the aqueduct was again destroyed when the wall was built, apparently from the character of the masonry during the reign of Herod. Whether the aqueduct ran down the crest of the hill, or kept along its side, must at present be a matter of conjecture; there seems every reason to believe that the remaining portion is still in existence, and its discovery by some future explorer will throw considerable light on the topography of the city. The discovery of a wall, similar to that at the Wailing Place, at this point is also of interest, but unfortunately the information relating to it, and its position with reference to the rock, is not as full as we could wish. A plan and section of the souterrain, and the southern portion of the aqueduct as far as the Haram wall, which has been prepared by Mr. Schick, is attached.

We may now endeavour to trace the aqueduct to its source. In my notes to the Ordnance Survey of Jerusalem, written in 1865, the following passage relating to the supply of water to the city, from the north, occurs:—"The pool to the left of the north road, a little beyond the Tombs of the Kings, is now nearly filled with soil washed down by the winter rains; but at the upper end there is still a shallow excavation which holds water after heavy rain, and at the lower end the scarped rock is visible; this must have been the largest pool in the neighbourhood of the city, and is admirably situated for collecting the surface drainage of the upper branches of the Kedron valley. It was probably connected with the Pool of Bethesda by an aqueduct or subterranean conduit, as this latter pool is so large that it must have been filled by some such means. The difficulty is to find this conduit. The most natural line for it would be to follow the course of the Kedron valley and enter near St. Stephen's Gate, filling at the same time the Birket Sitti Maryam; but against this is the constant tradition of water having been brought in near the centre of the north wall of the city, the reputed springs at the Convent of the Sisters of Zion and Church of the Flagellation, and the Arab name of a street in that quarter,

Hosh Bakîr or Hosh Bezbezi (the running or bubbling of water), such as would be caused by the bursting forth of a spring; none such exists, but the name is suggestive. If there is any truth in these traditions, the water must have been brought down by a tunnel similar to that at Siloam, and cut in the soft stratum of 'malaki,' which would here lie at about the right slope and distance from the surface. Perhaps this may have been the ancient conduit lost or destroyed at some troubled period, and afterwards replaced by a later one following the course of the Kedron valley. In this case the cutting in the rock at the Convent of the Sisters of Zion would be a portion of the former, and the conduit at the Birket Sitti Maryam a portion of the latter. The traditional pool near the Church of St. Anne would of course be connected with such a system of water supply."

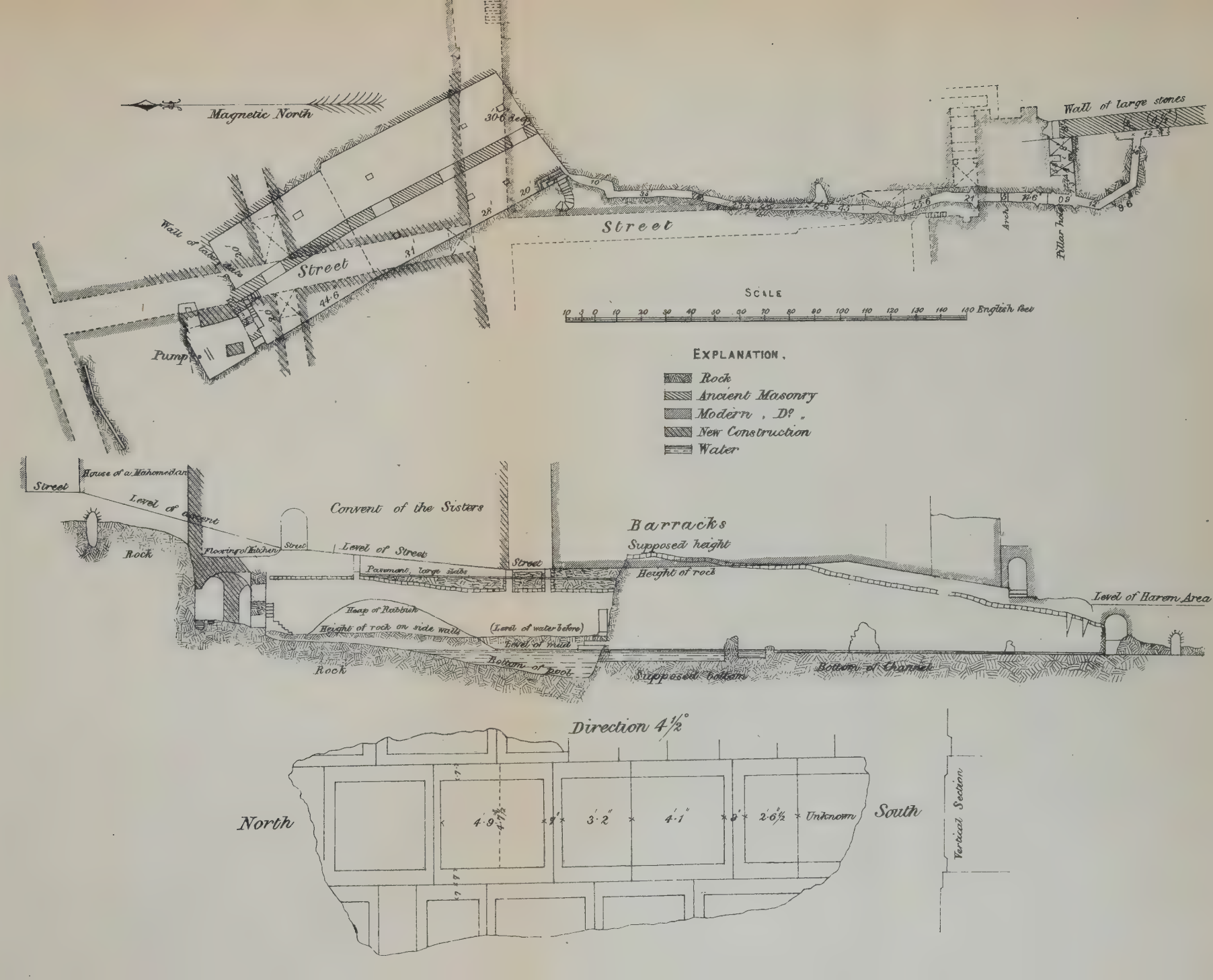
I am still inclined to believe that the aqueduct derived its supply of water from the pool north of the Tombs of the Kings, or from some point near it,* and would identify this pool with the "upper pool" of 2 Kings xviii. 17, and of Isaiah vii. 3 and xxxvi. 2, and also with the upper water-course (accurately, source of the waters) of Gihon stopped by Hezekiah when he brought its waters "*straight down to the west side of the city of David.*" The aqueduct would in this case be the conduit of the upper pool in the highway of the fuller's field, by which Rabshakeh stood when he addressed the Jews on the walls of the city.

The frequent identification of Siloam with Lower Gihon, the scene of Solomon's anointment as king, is noticed in the "Dictionary of the Bible," art. Gihon, and the position of the source, mentioned above, from which the aqueduct probably derived its supply, accords well with the slight indications we have of the site of Upper Gihon. Assuming also that the view taken by several writers, that the city of David was on the eastern hill, is correct, the aqueduct is exactly in the position we might expect to find it from the verse quoted above. The verse has always been a difficult one to understand in connection with the topography of Jerusalem, but assuming that the city of David was on the eastern hill, it is at once explained by the recent discovery.†

I do not know of any other source from which the aqueduct could have derived its supply of water, except perhaps the sealed fountain near Solomon's Pools. The high-level aqueduct from this spring has never been traced into the city; the last place at which it is seen is on the so-called Plain of Rephaim, and its level is sufficiently high to deliver water at the Jaffa Gate. The level of the new aqueduct is lower than this,

* In the Wâdy Biyâr, near Solomon's Pools, there is a long tunnel cut in the rock for the purpose of collecting water, and there are others of a similar nature in the country; they are apparently of great age, and the aqueduct recently discovered may have derived its water supply in a similar manner.

† In the article on the Topography of Jerusalem in the "Dictionary of the Bible," this northerly position is given to Gihon, and on one of the maps the great central valley which separates the eastern from the western hill is called the Valley of Gihon.


Magnetic North
Wall of large stones
Street
Wall of large stones
Street
Pump
SCALE
10 3 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 English feet
EXPLANATION.
Rock
Ancient Masonry
Modern , Dº ,,
New Construction
Water
Street
House of a Mahomedan
Level of Current
Rock
Flooring of Kitchen
Street
Convent of the Sisters
Level of Street
Pavement, large slabs
Street
Barracks
Supposed height
Height of rock
Level of Harem Area
Heap of Rubbish
Height of rock on side walls
(Level of water before)
Level of mud
Rock
Bottom of pool
Supposed bottom
Bottom of Channel
Direction 4½°
North
4·9
4·7½
9′
3·2″
4·1″
2′
2·6½
Unknown
South
Vertical Section

apparently about twenty feet, and it is difficult to believe that the water would have been brought into the city at a level so much lower than necessary, especially as it might, after supplying the upper town, have been taken straight down to the Temple over the causeway. It may possibly be a branch of the high-level aqueduct, brought round the head of the great central valley to supply Bezetha with water; but this hardly seems likely, as it would then be necessary to make the date of the excavation east of the Damascus Gate and the cutting at the souterrain later than the reign of Herod.

Mr. Schick states, in addition, that he has made a careful plan of the great quarries, or "Cotton Grotto," and of some adjacent ones which have recently been discovered. The latter extend beyond the city to the north, and the present wall, which bends inwards at this point, runs over them. Mr. Schick is of opinion that the original wall ran in a straight line from A to B (see plan), and that the present wall is modern. It may be noticed that if there was an opening to the quarries on this side, near I, for instance, stones could be easily run down the eastern side of the hill for the construction of the east wall.

Mr. Schick also mentions that he has traced out the numerous aqueducts in Wádies Aroob and Biyár, and laid down their positions on a map. He believes that the aqueduct which conveyed water from Wády Aroob to Jerusalem, and which proves to be nearly sixty miles long, was made by Herod, and that the high-level aqueduct from the sealed fountain is the work of Solomon.

Mr. Schick is at present engaged in constructing a model which will show the natural features of the ground before they were covered with rubbish; and as, during his long residence in Jerusalem, he has had peculiar facilities for obtaining information, the model promises to be extremely interesting. C. W. W.

PALESTINE GEOGRAPHY IN THE SEVENTEENTH CENTURY.*

BY JOHN EGLINGTON BAILEY.

No one at all familiar with the work whose title is at the head of this paper would hesitate to give it a prominent place among the literature of the Holy Land, which it has been projected to collect in connection with the Exploration Fund. Lamb, who knew the work well, would assuredly make it one of the "front teeth" of the collection; but not so much on account of its practical utility—such books, according to Elia's canon, were no books—as on account of its quaintness and *wit*. For, though professedly a mere geographical description of Palestine, the

* "A Pisgah Sight of Palestine and the Confines thereof; with the History of the Old and New Testament acted thereon. By Thomas Fuller, B.D. London: Printed by M. F. for John Williams, &c. 1650."

writer, "quaint old Fuller," better known from his connection with his "Church History" and "Worthies," has scattered throughout such a profuse display of his peculiar imagery and facetiousness as to render every page of it most delightful to read. In addition to the sacred topography, he enters at length into many of the Bible narratives, and introduces very many other matters which have not the remotest connection with his title-page. Hence the book is calculated to both amuse and instruct; and the saying, "a great book, a great evil," was never more false than in its application to this work. In lack of other matter for the *Quarterly Statement*, a few words about it may not be out of place; the more so as we may derive from it a clear view of the knowledge of the Holy Land which our ancestors possessed about the middle of the seventeenth century.

Fuller's attention was first attracted to this subject by his History of the Crusades, which he published in 1638 under the title of "The Holie War." Palestine being mainly the theatre of that history, he described it in a few brief but characteristic chapters, giving indeed to chapter xviii. the very title of the work we are noticing. He had by that time looked closely into the accessible geographical knowledge of the time, for we find him making the following curious remark on the map prefixed to the "Holie War:"—

"Of thirty maps and descriptions of the Holy Land, I have never met with two in all considerables alike: some sink valleys where others raise mountains; yea, and others where others begin them; and sometimes with a wanton dash of the pen create a stream in land and a creek in sea more than nature ever owned. In these differences we have followed the Scripture as an impartial umpire. The latitudes and longitudes (wherein there be also unreliable discords) I have omitted, being advised that it will not quit cost in a map of so small extent."

Fuller was too much engaged in preaching for the royal cause and in campaigning with the royalist armies to resume what was apparently a dearly cherished work, viz., the amplification of the chapters to which I have referred. So soon, however, as the wandering parson obtained, with the curacy at Waltham Abbey, a fixed habitation, he composed the "Pisgah Sight," laying aside for a time those other literary labours on which his fame rests.

It is a large folio of some 800 pages, and was issued at great expense, which was defrayed in a large measure by Fuller's elaborate system of obtaining "patrons." He perpetuates the names and arms of at least *seventy* of these friends! The *engraving* in the work was a serious item in the expense. Besides a very large map of the country, there are twenty-seven double-paged maps of the tribes, the surrounding nations, the land of Moriah, Jerusalem, &c., sketches of the Temple, the clothes of the Jews, their idols, &c. All the maps bear in parts some resemblance to the old charts of Africa and other *terræ incognitæ* which used to circulate among our early navigators. The artists have aimed at depicting the chief *events* of the Bible narratives on the particular spots

where they occurred, and they have gained their point with much ingenuity. Thus, the progress of the Israelites is pictorially traced into the promised land; refugees are shown to be hastening towards the cities of refuge, followed by pursuing avengers; Jonah's "whale," with the ship in the storm, is represented with exaggerated bigness off Joppa; and Moses is seen viewing the land from Pisgah. Fuller terms these quaint drawings "history-properties," and gravely recommends them to one of his child-patrons until such time as he could read! With the same apparent gravity he also requests the reader not to measure his "properties" by the *scale of miles* in his maps, but to carry one in his eye for that purpose!

The *first* book contains a general description of Judea; the *second* is occupied with the tribes; the *third* treats of Jerusalem and the Temple; while the *fourth* comprises the surrounding nations. To this section are added illustrated accounts of the Tabernacle, garments, idols, measures, &c., of the Jews. The *fifth* book is devoted to a miscellaneous assortment of topics.

Fuller's work occupied a foremost place in his day among those works whose aim was to illustrate the Bible. His position in relation to the undertaking he likens (chap. i.) to that of the Israelites at Kadesh Barnea, whose desire to go up to possess the land was "deaded" by the spies' report of the three sons of Anak: when pleasing considerations urged him to compile the book, "three giant-like objections" disheartened him. First, *that the description of the country had been done by many before;* an objection, he says, which might be lawful against the industry of all posterity, but which never disheartened *St. Luke*, forasmuch as many had taken in hand to set forth histories before him; and he adds:—

"Yea, the former endeavours of many in the same matter argue the merit of the work to be great. For sure there is some extraordinary worth in that face which hath so many suitors."

Second: *that the work could not perfectly be done by any*—an objection, he says, which should quicken and not quench industry. Third: *that if exactly done, it would be altogether useless, and might be somewhat superstitious.*

Under the latter head he quietly jeers the heated imaginations of certain of his contemporaries when, in answer to the remark that it was better to let the land sleep quietly, he says: "the rather because the New Jerusalem (Rev. xxi. 10) is now daily expected to come down, and these corporal (nor to say *carnal*) studies of this terrestrial Canaan begin to grow out of fashion with the more knowing sort of Christians." He claimed for his studies that they did much to the true understanding of the Bible. In the verse, "And hath made of one blood all the nations of men" (Acts xvii. 26), he finds three studies in which the industrious antiquary took especial delight:—

"We may see Divinity the Queen waited on by three of her principal ladies of honour, namely, skill in (1) GENEALOGIES, concerning the persons of men and

their pedigrees—'*of one blood all nations;*' (2) CHRONOLOGY, in the exact computation '*of the times afore appointed;*' (3) GEOGRAPHY, measuring out the limits of several nations—'*and the bounds of their habitation.*'"

A few passages which we now come to cite will show the spirit and pleasantry of the work :—

JERUSALEM.—"As Jerusalem was the navel of Judea, so the Fathers make Judea the middest of the world, whereunto they bring (not to say *bow*) those places of Scripture, 'Thou hast wrought salvation in the midst of the earth.' Indeed, seeing the whole world is a *round table*, and the Gospel the *food* for men's souls, it was fitting that this *great dish* should be set in the midst of the *board*, that all the guests round about might equally reach unto it; and Jerusalem was the *center* whence the *lines of salvation* went out into all lands."—(iii. 315.)

"THE LONG-LASTING OF THE PYRAMIDS is not the least of admiration belonging unto them. They were born the first, and do live the last of all the seven wonders in the world. Strange, that in three thousand years and upwards, no avaritious prince was found to destroy them, to make profit of their marble and rich materials; no humourous or spightful prince offered to overthrow them merely to get a greater name for his peevishness in confounding than their pride in first founding them; no zealot-reformer (whilst Egypt was Christian) demolished them under the notion of pagan monuments. But, surviving such casualties, strange, that after so long continuance they have not fallen like copyholds, into the hand of the Signeur (as lord of the manor) for want of repairing. Yea, at the present they are rather ancient than ruinous; and, though weather-beaten in their tops, have lively looks under a gray head, likely to abide these many years in the same condition as being too great for any throat to swallow whole, and too hard for any teeth to bite asunder."—(iv. 85.)

THE MASSACRE OF THE INNOCENTS.—"The souls of these children are charitably conceived by the primitive church all marched to heaven as the *Infantry of* the noble Army of Martyrs."—(ii. 301.)

"THE ONCE FAMOUS CITY OF CAPERNAUM, Christ's own city. Note by the way, Christ had three cities which may be called his own (if seven contended for Homer, well may three be allowed to Christ): Bethlehem, where he was born; Nazareth, where conceived and bred; and Capernaum, where he dwelt—more than probably in the house of Simon Peter. This Capernaum was the magazine of Christ's miracles. Here was healed the servant of that good centurion, who, though a Gentile, out-faithed Israel itself. . . . Here Simon Peter's wife's mother was cured of a fever; and here such as brought the man sick of the palsy, not finding a door on the floor, made one on the roof (Love will creep, but Faith will climb where it cannot go), let him down with cords, his bed bringing him in, which presently he carried out being perfectly cured. Here also Christ restored the daughter of Jairus to life, and in the way as he went (each parenthesis of our Saviour's motion is full of heavenly matter, and his *obiter* more to the purpose than our *iter*) he cured the woman of her flux of blood with the touch of his garment. But amongst all these and more wonders, the greatest was the ingratitude of the people of Capernaum, justly occasioning our Saviour's sad prediction, 'And thou, Capernaum, which are exalted,' &c. O sad strapado of the soul, to be hoisted up so high, and then cast down suddenly so low, enough to disjoint all the powers thereof in pieces! Capernaum at this day is a poor village, scarce consisting of seven fishermen's cottages."—(ii. 109.)

"As for their conceit that Anti-Christ should be born in *Chorazin*, I take it to be a mere monkish device to divert men's eyes from seeking him in the right place where he is to be found."—(ii. 97.)

The difficulties as to the position of many towns, &c., are settled by Fuller in his rough and ready way. The first syllable of Gadara is to him argument enough to place it in Gad. He finds the distance in miles between two places stated differently in two authors, and he "umpires" such difficulties by *striking the balance*. Dibon, which he finds sometimes resigned to Reuben (Josh. xiii. 27), sometimes to Gad (Numb. xxxii. 24), he treats similarly. "Some," he says, "make them different and distant cities, which, in my apprehension, is rather to set up two marks than to hit the right one. For seeing these two tribes confine together [are contiguous], and both lay claim to Dibon (like the two mothers challenging the living child), we have only, instead of a sword, made use of pricks, setting it *equally in the bounds of both*." The distance between Cyprus and the continent "*could not be great*, if it be true what Pliny reports, that whole herds of deer used to swim over thither." The work concludes with a very elaborate index of names, with English equivalents, similar in some respects to that given in Stanley's "Palestine;" in it, "to fix the Hebrew names better in our memory, we have here and there (as the propriety of our language and commodities of our country will admit) inserted some English towns as *synonyma*, and parallel to the Hebrew in signification."

Designed to make the readers of his day more familiar with the geography of the Holy Land, Fuller's *Pisgah* must often have been ranged with the Bible in the English homes of that time. Without competent skill in sacred geography, he says that ignorant persons, like the blind Syrians, who, intending to go to Dothan, went to Samaria, "must needs make many absurd and dangerous mistakes." "Nor can knowledge herein," he adds, "be more speedily and truly attained than by a particular description of the tribes, where the eye will learn more in an hour from a map than the ear can learn in a day from discourse." He complained that while his countrymen were generally quick-sighted in other kingdoms and countries, they "were altogether blind as touching Judea and the land of Palestine—the home of their meditations who are conversant in all the historical passages of Scripture." Spite of its great age the book even yet remains eminently useful in this particular, albeit that so much fresh light has been thrown on sacred topography by more recent travellers and scholars. The writer of this article has often consulted it with more advantage than he has derived from better-known works. We may see a proof of the popularity and usefulness of the work in the fact that a second edition appeared in 1652, and a third in 1659.

To its success Fuller himself alluded, with a pardonable pride, when (in answer to his opponent, Dr. Heylyn, who also had written a description of Palestine in his "Microcosmography," and who perhaps regarded Fuller as a poacher on his estate) he said that his book (by God's good-

ness) had "met with a favourable reception," and that it was "likely to live when I am dead; so that friends of quality solicit me to teach it the Latin language." A fourth edition appeared in 1662; but no further publication of it occurred until a year or two since, when Mr. Tegg issued a small-sized reprint, with clever fac-similes of the maps, reduced in size.

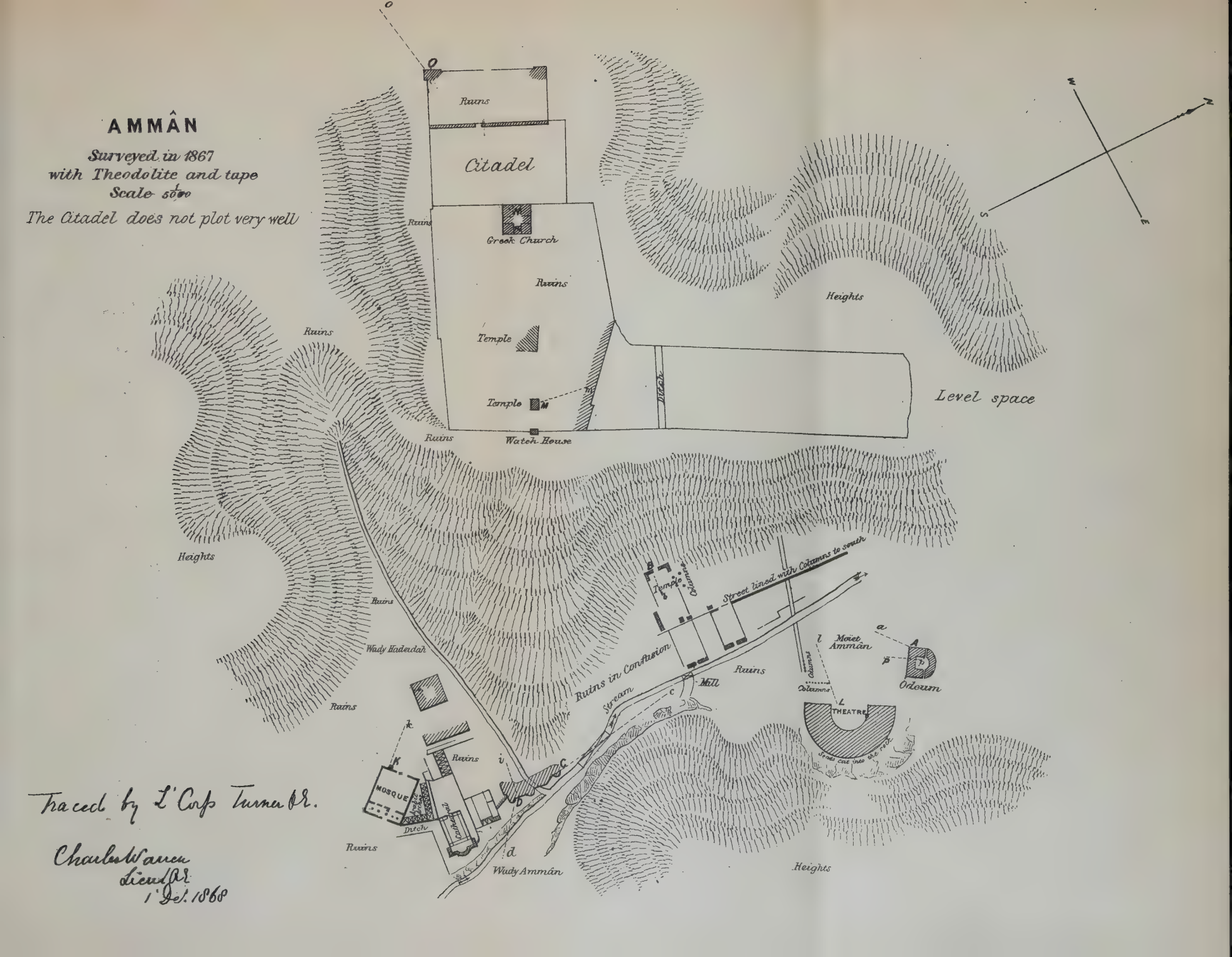
In all respects the "Pisgah Sight" was worthy of Fuller's sacred calling. An ardent antiquary himself, Fuller carried his favourite pursuit into his profession. To him, as to his contemporary, Browne of Norwich, "The Ancient of Days" was the antiquary's truest object. The "Pisgah" reverently sprang from his affection for the Bible; for (to use his own expression) next to God the Word, he loved the word of God. Hence the Bible is the chief authority for his work. We find him saying (book v. 170), "Let God be true and every man a liar. I profess myself *a pure leveller*, desiring that all human conceits (though built on most specious bottoms) may be laid flat and prostrated if opposing the *written word*." None of his books so markedly shows how well acquainted the writer was with his Bible. Probably every topographical verse is inserted, and a very great many others. He was an "exact text-man," and was especially happy in making Scripture expound itself. "Diamonds," he would say, "only cut diamonds." Josephus, of course, ranks as his next authority. Fuller thought that, notwithstanding the faults of that author, "the main bulk of his book deserved commendation, if not admiration; no doubt at the first compiled and since preserved by the special providence of God to reflect much light on the Scriptures." He is at pains to free Josephus from the strictures of Baronius, on the ground that the former may have fallen into involuntary errors. It is in this defence of Josephus that Fuller forestalled, if he did not inspire, a well-known passage* in one of Wordsworth's ecclesiastical sonnets:

"Historians who have no faults are only fit to write the actions of those princes and peoples who have no miscarriages; and only an angel's *pen, taken from his own wing, is proper to describe the story of the Church triumphant.*"—(ii. 148.)

In illustration of his work, Fuller made besides an occasional use of the Rabbins; but this field of illustration he left to his friend, Dr. John Lightfoot, who, by a curious coincidence, had planned a similar work to that of Fuller. The references of these two scholars to each other in their respective books are most cordial, notwithstanding that each in a manner baulked the designs of the other.

Fuller also brought under contribution many of the old writers on Palestine; we find him quoting, among others, Pliny, Jerome, Ptole-

* "There are no colours in the fairest sky
So fair as these. The feather whence the pen
Was shaped that traced the lives of these good men
Dropped from an angel's wing."



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Charles Warren
Lieut RE
1st Dec. 1868

meus, Villepandas, Arias Montanus, Adricomius, Bocartus, &c. Of *travellers* he consulted Brocardus, Breidenbachius (whose description, he says, was "neither divided into leaves, pages, columns, nor chapters," book ii. 149), Morison, Biddulph ("a late English divine," book ii. 140), Munster, Bunting, &c. Sandys, the famous eastern traveller, personally known to Fuller (who says of him that he "spared other men's pains in going to the Holy Land by bringing the Holy Land home to them, so lively is his description thereof" *), is very often mentioned.

In addition to his familiarity with the literature of the subject, Fuller evinces a considerable critical skill in his discussion of topics connected with geography, history, and divinity; the learning, indeed, which he displays throughout is both deep and solid. We see as we read that the author was one of those "*gulfs* of learning" who were not singular in that age. J. E. B.

EXPEDITION TO THE EAST OF JORDAN.

BY THE REV. A. E. NORTHEY.

On Tuesday, the 18th of April, 1871, about one o'clock in the afternoon, we started—a party of five—on our trip across the Jordan, intending to encamp the first night at Ain Sultân.

We were at last about to accomplish our long-cherished plan of visiting the country east of the Jordan, the chief points of interest being Mount Nebo, Heshbon, Ammân, and Gerash, with the intervening country. After a long lingering look at the view of Jerusalem from the Mount of Olives, and a grope into the so-called tomb of Lazarus at Bethany, we mounted our horses and commenced the rapid and rocky descent from Jerusalem to Jericho, so well known to all Eastern pilgrims. This remarkable region, with its intersection by enormous ravines like the Wady Kelt, its curious geological features, and by no means scanty botanical treasures, is well worthy of a careful and scientific exploration, even independent of its Biblical interest. Immediately after passing the khan, about which wandered ghoul-like the forms of three Turkish soldiers, who are posted here during the season of the Jordan pilgrims, our Adwan guide led us, by a track on the left-hand side, to the summit of a peak, from which we gained a varied and extensive view over the country in every direction. Following this track, instead of returning to the main road, we skirted some of the heights which overhang Wady Kelt. The views are well worth a scramble, far surpassing those which we had seen on a former occasion from the main route. An additional elevation of a couple of hundred feet often discloses, as every traveller knows, an entirely new series of views. This was the case now; we could see well into our promised

* "Worthies of England," § Yorkshire.

land, the East of Jordan; Nimrîn, Wady Hesbân, Keferein, and other places which we proposed to include in our route, were pointed out to us; and the Ghor, with its graduated tints of dark and light green, yellow and white, stretched its long, narrow valley far up towards the north. Lovely peeps of the Dead Sea, and of the pink and purple mountains beyond, opened out now and then on our right, while on our left the enormous ravine of the Wady Kelt forbade too near approach as we endeavoured to peer down into its depths.

All round us lay the billowy masses of the rocky wilderness, heaped about in endless confusion. Egyptian vultures and buzzards were soaring far overhead, as we leisurely descended, feasting our eyes upon the gorgeous sunset tints of purple, pink, and rose, into the Jordan valley. In the evening glow the white mounds, or mamelons, of cretaceous deposit in the centre of the Ghor might, with no great effort of imagination, be spirited into the fairy vision of a city fringing the river banks. Just before dark we reached our tents, pitched on the farther side of Ain Sultân, the usual camping-place being occupied by a huge caravanserai of eighty-four middies of H.M.S. "Trafalgar," accompanied by some of their officers and the Bishop of Gibraltar. In front of our tents was a dense mass of wood, chiefly nebk, destined to be often a thorn in our flesh. Far away in the distance, as we turned to look southward, rose the heights of Nebo on the left and of Nebi Musa on the right, with a partial glimpse of the Dead Sea between them. Behind us stood Mons Quarantania and its neighbours.

We had of course before leaving Jerusalem concluded our contract with the Adwans; Sheikh Goblan being at some distant place out of reach, the bargain with us had been made by his brother, Sheikh Fallah. Owing to some vigorous measures of the Turkish government, and the increased number of travellers, the demands of these Arabs have lately been much reduced. The fee paid is not levied as blackmail, but is simply a sort of "police and guide rate." We found it by no means excessive; it would contrast very favourably with the demands of Swiss or Pyrenees guides along paths where no one with two eyes in his head can possibly miss his way. We agreed to pay £10 for escort and guides, leaving to them to fix the number of men who should accompany us: this was usually about a dozen. We were to visit all the places of interest which we mentioned, and any others which they liked to show us, and were to encamp where and as we pleased, merely giving them a general idea of our contemplated route, and of the time for which we should require their services, which we estimated at ten or twelve days. They were to be responsible for all losses, and to secure us from any trouble or danger. We had every reason to be satisfied with their performance of the contract; they were perfectly faithful and honourable; indeed, we liked them exceedingly, and were only sorry that our limited stock of Arabic prevented conversation with them. Sheikh Fallah and a fine young fellow, Abdul Asiz's son, were excellent guides, most willing to show us all they could and to tell us all the

names of the wadies, jebels, and beit gadeem (ruins), about which we plagued them considerably. They often went out of their way to show us a view or a ruin, were courteous and intelligent, and never gave us a moment's trouble. Goblan turned up at Ain Sultân, and grumbled slightly at the too favourable terms, as he thought, of the contract made on his behalf; however, he was soon appeased by the promise of "a little something extra." This included, our trip cost us £15 extra, £3 a piece, which cannot be called extravagant for ten days. It was well worth it.

The next morning, after a delicious bathe in Elisha's fountain and a good breakfast, we set to work to explore the ruins and thickets situated at the foot of Mons Quarantania. The ruins consist of fragments of water-conduits, mills, and houses, of no great antiquity; here and there were patches of cultivated land, fenced in by a hedge of dead cut thorn-branches, a most effective obstacle to the entrance of a trespassing Howadj. Farther north, close under the hills, the glen or oasis of Ain-el-Dûk is very fertile, though thorny trees and bushes abound. Birds were plentiful, including large flocks of the lovely rollers, quails, partridges, buzzards, hopping-thrushes, and others. After a while, we assembled our scattered forces, and descended leisurely to the River Jordan, which we reached in about two hours. The whole of this portion of the Ghor is stony, like the dry bed of a torrent, full of boulders and pebbles, one gigantic wady. The heat was great, but the air not sultry.

On arriving at the bank of the river, near En Nwaimeh Ford, we found to our surprise a large and well-built ferry-boat, which transported us, our animals, and our effects, over to the other side in a very few minutes. A most picturesque scene it was; different indeed from that which we had last witnessed at the Jordan, when its banks and its waters were crowded with Easter pilgrims. Now all was peaceful, still, and tropical; canes, willows, and tamarisks clothed the river with dense masses of green; birds sung and fluttered gaily about, and the plash of the wet rope in the rapid current caught refreshingly our ears as we lay gasping in the noon-day heat. And now we touched the eastern bank; our feet trod the land on the East of Jordan; we felt now that we were really starting; and we indulged in a traveller's pardonable exultation at the prospect of leaving the beaten track, and seeing with our own eyes that fair land of Gilead, which had been possessed by Moab and Ammon, Sihon and Og, Reuben and Gad, but of which all the splendour, in monuments made by man, dates from its history as a province of Imperial Rome. We looked forward with keen delight to our contemplated trip, which, indeed, did not disappoint us. It is of the highest interest, and being now easy of accomplishment, should on no account be omitted by any who wish to gain a complete acquaintance with the inheritance of the Twelve Tribes—the entire land of promise.

At 1.30 we left the eastern bank of the river, and riding leisurely, reached Nimrîn in two hours and a half. The bottom or bed of the Ghor

here is of the same character as on the other side. On approaching Nimrîn, we noticed some fields of wheat, of considerable extent, well cultivated and weeded; and gathered some of the little round fruit of the Dôm-trees, which was just ripe; it is somewhat like a medlar, pulpy, and slightly sweet. Camping here, we had time and light to go out and explore the place. Of ruins there is not much. Some old mills and conduits, and one building, prettily situated on an eminence, which at a distance might pass muster as a dilapidated church, was all that we could find. Nature was more inviting. At Nimrîn we had our first experience of the fine gushing streams that are so delicious and fertilising on the east of Jordan. A bathe in the deep pools of this one, under a bower of huge canes and flowering oleanders, is a very elysium in Syria. The vegetation is tropical; there were many young plants of the Osher, or Sodom apple, with its fine handsome foliage, and castor-oil plants growing to the size of a large apple-tree. The Dôm-trees have exactly the growth and appearance of our black-thorn, and the leaves are like large sloe-leaves. From Nimrîn we looked back, with some degree of triumph, at the western side of Jordan, the hills of Judæa, the gorge or huge crack, as it now appeared to us, of Wady Kelt, the green oases of Er-Riha, Ain Sultân, Ain Dûk on the other side, and of Keferein and Wady Seisaban on this side Jordan. Here we shot several birds, two species of shrike, and others. Thermometer inside the tent at night 77° Fahrenheit.

Thursday, April 20th.—We had intended following Dr. Tristram's route as nearly as possible, but Fallah wished to show us some ruins in another direction, which he said were better than anything to be seen at Keferein. We therefore struck nearly due east, instead of turning south to Keferein, and in half an hour left the Ghor, and entered into a rocky gorge or glen. About a mile up this we passed a ruined bridge; the smooth slopes of the hills on either side (unterraced, as Dr. Tristram remarks) were covered with flowers, among which we recognised several old garden acquaintances, borage, camomile, sage, mustard, hollyhocks, and others. The only trees were nebk and hawthorns. Partridges abounded. The strata, all of limestone, dipped N.W. at an angle of 10° to 15°, but in many places they were much contorted. As we mounted, the views were beautiful over the Jordan valley, the Dead Sea, and the Judæan hills, which looked considerably lower than the Moab hills do from the west. The roads from Er-Riha to Marsaba and Jerusalem were distinctly visible.

After two hours' ride we came to a ruin called Sûr, one of the claimants to the site of the ancient Jazer. There is, however, but little here, and it seems to me that Khirbet Sûr, in the valley below, is more probably the true site. The position of Sûr, on a lofty spur or ridge overlooking Wady Sûr, is fine, but the ground is so uneven, that there is not room for a town of any size. The ruins consist merely of a rough wall in the shape of an irregular triangle, the longest side 350 yards in length, with semicircular buttresses or turrets projecting every 50 yards. The

wall is about 6ft. thick. There is a well at the N.E. corner, but no hewn stones anywhere, and nothing to reveal the age of the building.

From Sûr a ride of an hour and a half over high ridges, with fine views over Wady Sidr (Sûr ?), Wady Keferein, and the country round, brought us to Arak-el-Emir, when, passing the ruins of Hyrcanus' palace, we descended at once to the Wady Seir, where we found a charming place for lunch under magnificent oleanders by the side of a rushing stream. The oleanders here grow with immense vigour, attaining a height of 40 or 50 ft.; there are also some very fine plane-trees. The stream was full of shells. After lunch we first explored the caves in the rock cliffs to the north of the palace or castle. Great chambers have been hollowed out, perhaps originally natural cavities, but greatly enlarged and shaped by artificial means. One which we measured was 45ft. by 33ft., and about 20ft. high; another 54ft. by 36ft., and 28ft. high. To each of these chambers there were two openings; one a kind of square window, 12ft. high by 6ft. wide; the other a rough square doorway below. At the side of the entrances was an inscription or name in ancient Samaritan, the same in both cases.

Beyond these was another chamber, longer, narrower, and lower, which had been used as a stable. It is 96ft. in length; round the sides is a range of stone mangers cut out of the solid rock, about 3ft. high. Close by is a round cistern, 12ft. in diameter, as well as many other caves and passages, the entrance to some of which was purposely made by Hyrcanus as difficult as possible. Two large squared stones, standing up edgeways, with a chequer pattern on them, puzzled us, as they have puzzled every one who has seen them. Due east of these cavernous chambers, at the distance of half a mile, are some remains; smoothed rocks, steps cut in the rock, and a niche in the shape of a square panelled recess, about 1ft. in depth. A little south of this lay the entrance gateway, built of large stones squared and finished with the Jewish bevel. The aperture of the gate was 12ft. wide; one stone measured 11ft. in length by 5ft. in width. From this gateway to the castle was a raised causeway, with some perforated stones placed on it at intervals. Of the castle itself, all that remains standing is part of the front or façade, built of stones of enormous size, with a frieze of about 12ft. in height, on which are huge lions sculptured in bold alto-relievo. All about lie great fragments of the building, pieces of columns, friezes, with triglyphs and metopes, cornices, and some very fine and elaborate mouldings, all of the Doric style. Some of the stones measure 20ft. by 8ft., beautifully finished with the Jewish bevel.

The castle stands on a raised platform, in the middle of a walled enclosure of ten or twelve acres, of which the traces can still be seen. The position and scenery around are beautiful, and Hyrcanus was a wise man to choose so charming a spot for his enforced retirement. The glen to the N.E. above Wady Seir, the cliffs, the sides of the hills covered with oaks and terebinths, with the undulating verdant slopes below, make a lovely landscape, not unlike some parts of Wales.

We started from Arak-el-Emir at 4.30, keeping nearly due south, descended by the right side of Wady Seir, crossed Wady Keferein, and mounting the hill to the south of it, reached our camp in two hours. Our tents were pitched high up on the side of the hill, below and north-east of Jebel Jabud, facing Wady Seir, in a romantic and picturesque spot.

Friday, April 21st.—Having been invited by Sheikh Goblan to dinner, and having learnt that it was against all etiquette to present ourselves before midday, we did not move from our encampment till ten o'clock. We then ascended Jebel Jabud, 2,700 ft. high,* from which we had a magnificent view in every direction. Keeping along very high ground, we arrived just at noon at Goblan's village, to which he welcomed us with dignified courtesy. He took us into a large long tent, with a partition at one end screening off the women, children, and puppies. Seating ourselves as well as we could after their cross-legged fashion on rugs and carpets, we were presented with coffee and a sweet aromatic mixture. After an interval, two attendants brought in an immense iron cauldron or dish, in which was piled a mass of stewed mutton and rice, We set to work with our fingers, and finding the mess palatable enough, and not so greasy as we anticipated, did our duty manfully. We could not emulate Goblan's dexterity in making balls of oily rice with the three fingers of the right hand, which was evidently a sign of Adwan *haut ton*, but we found that knives and forks were after all but useless encumbrances of advanced civilisation. Goblan supplied not only mutton and rice but also soap and water, and as we washed our fingers, the mountain of food vanished before the attack of hungry Arabs. A sheep is evidently not killed every day. After our repast Goblan showed us a picture of the Crown Prince of Prussia, with which he had been presented, and asked intelligent questions about the war and various other matters.

All this time, ceremoniously wasted, we were longing to scale Mount Nebo; so, as soon as manners would permit, we rose, thanked our host for his hospitality, and proceeded. Passing for an hour through pretty rocky wadies, we came suddenly upon our tents, already pitched (2 p.m.) in the Wady Hesbân. We had, however, still almost our whole day's work before us. Descending Wady Hesbân south-west for half an hour, we passed Ain Suderah, and then turning to our left south-east, entered Wady Suderah, and through this and other wadies mounted steadily for three hours till we reached Jebel Nebba.

We were now certainly upon the height called by the Adwan Jebel Nebba, and pointed out to travellers as such. Wady Ayun Musa lies to the north, Wady el Gedid to the south. But the view was to us a

* For all altitudes referred to I am indebted to Captain Warren's table, given pp. 307–310 ; as also for some of the orthography. I much regret that I had not with me in our journey his most accurate and valuable itinerary. To all these altitudes may be added (roughly) 1,000 feet, to give the height above the Ghor, the nearest low level.

little disappointing. It was much the same as that from Jebel Jabud; there was higher ground to the south which entirely intercepted our view, and even prevented our seeing the whole of the Dead Sea. We had not time, or we should certainly have gone for about another hour southward, when, I fancy, the highest point of the range would be gained. Whether the view from thence over the country west of Jordan and Jericho would be equally commanding, of course I cannot say; but it would be worth trying. Fallah, at all events, had taken us to what they call Jebel Nebba; there were several eminences more easy to reach, which would have satisfied our ignorance equally well; but they pushed on to this point, so that we may be confident that our guides regard it as such. The view, at least, must be very nearly the same as that seen by the great Prophet—a glorious one, after all, it is. The exact spot visited by us may be identified by one special characteristic. The field, or hog's back, through which we passed on turning westward from the road in order to reach the summit, is full of deep holes—traps for falls to unwary travellers' horses. Cantering enthusiasts will probably examine a little too closely, as did two of our party, the rock of which Mount Nebo is composed. Arab agriculture will not quickly alter this characteristic.

It was nearly five o'clock before we started on our way back to our camp. We did not retrace our steps, but kept on the high ridge which lies between the plateau El Belka and the hills which slope down to the Ghor and the Dead Sea. This El Belka consists of immense rolling plains of corn, like those near Gaza, beyond which rises a wall of hills forming the boundary of the great Arabian plateau. We reached Hesbân at six, when it was getting dusk, and had not time to explore the ruins, which, though scattered and fragmentary, are of great interest. They are of all periods, but chiefly Roman; and consist of arches, broken columns, entablatures, wells, cisterns, &c. One space, about forty yards by twenty, contains a pavement in good preservation, with the bases of four large Doric columns at one end, and other broken columns. It was not apparently a temple; perhaps a small forum or market-place. The position of Hesbân is high, commanding a fine view.

Continuing our ride by El Al (Elealeh), night overtook us; the stars and a thin crescent moon shone brightly as we stumbled down a small wady leading into Wady Hesbân, by a frightfully rocky path to thread in the dark. We arrived, however, safely at eight p.m. The strata in in this district, which is more rocky than farther north, are exactly of the same character as those of the hills about Bethlehem and the Mount of Olives—limestone with layers of flint; there are no traces of igneous action. The flowers and plants were also, as far as we could judge, identical with those on the west of Jordan.

Waking the next day, Saturday, the 22nd, to find ourselves close to a delicious spring bubbling like crystal out of the rock, Ain Hesbân, we had a most refreshing bathe, and after breakfast bade adieu

to Goblan, who did not wish to accompany us farther. He paid us many compliments, wished us a happy journey, and took with quiet dignity the liberal baksheesh which we put into his hand, delicately wrapped up in a piece of paper. He went back to his village, taking with him his son, a nice bright boy of ten.

We then went up Wady Hesbân in a north-easterly direction, which we followed all day. The wady just above Ain Hesbân is very pretty, being in fact a rocky glen ; large masses of rock detached from the cliffs, on either side lay strewn about, embedded in a tangled and luxuriant growth of shrubs and flowers, with here and there a fine old terebinth. Passed a hermit's cave, with an arch built over an entrance to it.

In an hour's time we came to a small ruin on the top of a circular tell called Um-al-Khanafish, and then emerged upon a high plateau of downs, like a Scotch moor and Sussex down combined. A knoll on the left was crowned by a cluster of pines, and the downs were covered with a fragrant thorny bush and many flowers. At eleven we reached Jebel Naûr, from which we had a fine view, embracing Jebel Osha (Mount Gilead), Sûr, and the hills about Hesbân; also a good deal of the country beyond Jordan. The hills on the west of Jordan present from this point a straight outline as far as Nablus, and then appear broken and irregular. Thermometer, 68° in shade, 91° in sun. Slight breeze from N.W. Wady Maûr, according to our informants, undoubtedly flows into Wady el Bahar, not into Wady Hesbân. Descending from this height, and threading these high undulating downs, we passed several Arab encampments, at one of which we were presented with some butter-milk in a not very lordly dish, and in an hour arrived at a ruin called Mousymak (Um as Samâk).

These ruins are of considerable extent and importance, of the Roman period. Buildings, of which the walls are still to some extent standing, extend in one direction more than 400 yards. A great many columns, capitals, pieces of frieze, bases, and other fragments, strew the ground. We found one column slightly fluted, one immense stone with the Jewish bevel, several Corinthian capitals and one Ionic; another stone also, with some Maltese crosses cut upon it. In the centre of the town is a platform, either for forum or temple, several wells, gateways, and well-built walls. We could not stop long enough to explore it properly, and I recommend it to the notice of future travellers. From Um as Samâk an hour's ride brought us to the summit of Jebel Tahîn, a rather low but conspicuous eminence in the middle of an elevated and undulating plateau; there was a fine view to the east towards the Hauran, but not much else. Tracking still to N.E., we reached Ammân in an hour and a half, entering Wady Ammân near a bridge over the stream, just south of the city.

One gaunt column on the left immediately caught our eye, then as we defiled into the valley, others revealed themselves; next, a pretty little temple; until as we wound up it, we found ourselves walking through a veritable city of the past. A wonderful ruin is Ammân. The

buildings stand, many of them fairly perfect, silent witnesses to a once teeming population. Temples, churches, theatres, public and private buildings, crowd one another, but all are desolate, and there are no inhabitants of the "city of waters" save storks and owls. Soon we caught sight of our tents, pitched at the farther end of the city, close to a row of eight columns, under the shadow, almost in the proscenium, of the Great Theatre, and backed by the clear stream. Here was, indeed, something to be seen! The Adwan had not been using hyperbole when they said that the Hawadjat would find Ammân "good and beautiful." We congratulated ourselves that we had arranged to spend here the whole of the next day, Sunday. We had still two hours' daylight, so we at once set to work to look about us; and during our stay we did what we could to gain a general idea of the place, which, I am glad to think, will at the hands of the American Expedition soon receive a careful and systematic exploration. The accompanying plan, inserted by the kind permission of Captain Warren, will facilitate explanation.

The city of Ammân, Rabbath Ammon or the "city of the waters," which Joab besieged, and where Uriah was killed, and later the Roman Philadelphia, lay, as will be seen in the afterwards-plan, in two narrow valleys, through which flow two small streams, one through Wady Hadâdeh from the north-west, and the other through Wady Ammân from the south-east. These unite near the building C D, and continue their course north-east through Wady Ammân. When we were there, the stream in Wady Hadâdeh was dry, but Moïet Ammân, as it is called, had a good supply of water, and there were pools large and deep enough for a swim. Crowning the height on the north-west, the shoulder between the two valleys, rose the citadel, holding a commanding position over these valleys and the country round. The valley is most contracted between the foot of the citadel and the great theatre, the valley widening as it extends south, though the rocky heights advance on the eastern side close up to the stream near point C, and then again recede. The chief buildings of interest have been well and accurately described by Dr. Tristram, and some measurements have been taken by Captain Warren (p. 295). I will therefore only give a few of the results of our too hasty investigation.

The main stream, Moïet Ammân, was paved and faced with stone quays, and there seem to have been two or three terraces, portions of which were probably colonnaded, rising one above another, and parallel with the stream. From the ruined bridge (C) as far as the still perfect bridge (C), a distance of 150 yards, can be traced spring stones for arches, suggesting that the stream was covered over for this distance.

The most interesting remains are the two theatres, the walls of the citadel at the north and west corners, the Byzantine church and great temple within the citadel, the two churches in the valley, and two temples. Amidst the mass of *débris* of masonry, often covered with rank vegetation, rise numerous columns or fragments of columns, and the walls of various buildings are still easily traceable.

Approaching the city, as we did, from the south, 500 yards above the bridge which once spanned the stream, we first come to a beautiful little Corinthian temple. It is 18ft. square inside, and was roofed with a dome. On the east side was a large window, which, as well as the whole of the exterior on that side, was richly decorated. Nearly half the original building, which must have been a perfect little gem, remains standing. 230 paces north of this temple is a rectangular enclosure 40 paces by 80, the walls of which were of massive masonry, the stones being dovetailed in a curious way. Beyond this lies the ruin of what is called the cathedral of Ammân (K). Captain Warren suggests that it may have been a mosque. It does not lie east and west. It is a large rectangular building, measuring 181ft. by 120ft., 35ft. at the end being cut off by a wall, perhaps as a sanctuary. There were three entrance gateways, and a tower at the corner with a circular stone staircase of 33 steps, from the summit of which we gained an extensive view of the city and valley of Ammân. To the east and north of this is a great chaos of ruined walls and houses, gateways, vestibules, at the river-end of which is another church (cathedral?) which remains in such preservation as to be distinctly traceable. It must have been very pretty when perfect, and excellent in its proportions. It consisted of a nave and two aisles, the nave 40ft., and the aisles each 20ft. in width, making a total of 80ft. At the east end of the aisles were square chapels, forming with the nave a kind of transept, and in the centre beyond a small apse; total length, 150ft. Fragments of columns of various coloured marbles point to a considerable richness of internal decoration.

North of this again is a small building with some pointed arches; and immediately beyond this, the building marked D, of which it is impossible now to define the shape or size. A great mass of masonry still remains, with niches, arches, and windows in it, and the face towards the stream consists of two massive round bastions. Two columns only still stand *in situ*. North of this is a bridge near point C still spanning the stream; and following the stream some distance we come to what was probably the forum—a rectangular space of 140 paces by 70, surrounded by a colonnade, and flanked by the great Theatre and Odeum. Eight columns, with their architrave, still stand upright, and a few others are to be seen about. Here is the most striking group of ruins; nothing can exceed the grandeur of the large theatre, crowned by the rocks out of which its semicircle has been hewn. Resting thus against the rock, with its forty-three tiers of seats still visible, its passages, corridors, galleries, and vestibules, it must have been a splendid building, capable of holding six or eight thousand persons. The small Theatre or Odeum, immediately adjoining, which could be almost perfectly restored if its fallen pieces were put together again, must have been a beautiful little gem in the Corinthian style, on which was lavished all the ornamentation of the Roman period.

Crossing the stream, our eye is attracted by a picturesque ruined

temple (B) of rich Corinthian style, one side of the altar end or adytum being still fairly perfect. And now, to scale the citadel hill, a formidable climb has to be encountered, though the view and the remains at the top well repay the trouble. A small ruin on the brow may have acted as a watch-tower or guard-house, and a few yards behind this are the ruins of a colossal temple (M), very probably dedicated to the Sun, like those at Gerash and Baalbec. The columns were of immense size. To the north-west of this, hidden down among the *débris*, lies the beautiful little Byzantine church (N) first discovered by Dr. Tristram. This requires searching for, as it may be easily overlooked, being now, if not originally, underground. It is in the form of a Greek cross, and is a perfect study of Byzantine ornamentation Round the whole of the interior is a series of small round-headed arches, in which are carved patterns of flowers and other objects, all elaborate, and each one of distinct design. It was probably roofed with a dome. This church lies in the midst of a mass of ruins in endless confusion, which are bounded on the north and west by some fine walls of massive masonry forming the escarpment of the citadel on that side, which requires more defence than the others.

From this angle (O) a walk down Wady Hadâdeh takes us through a great many ruined houses, broken columns, reservoirs, &c., too numerous to particularise and difficult to trace.

The ruins of Ammân are undoubtedly of the highest interest; for beauty of ornamentation they will bear comparison with those of any Roman city; not so extensive as those of Gerash, nor so Cyclopean as the few that remain at Baalbec, they are more varied in style and period, and some individual buildings, notably the great theatre and the Byzantine church, are very striking. The Roman Philadelphia is what we see; what may be underneath of Rabbath Ammon we cannot say; but the magnificence of this, a provincial city of the empire, is quite astonishing. We enjoyed our Sunday here immensely; 2 Sam. xxi., which we read at our little service, had almost a weird interest. We celebrated our stay by giving our Adwan friends a sheep, which cost half a napoleon. The night was fine and cool. Thermometer 65°.

Monday, April 24.—After a nocturnal serenade of jackals we turned out early, and were soon on our way to Es-Salt, turning up Wady Hadâdeh to north-west, and then below the north front of the citadel to the north-east. Presently we entered and passed through a very pretty country, consisting of a series of park-like rocky glens, the grey rocks cropping out from the luxuriant herbage, and fine terebinths of every size and shape supplying the picturesqueness of timber, which is so sadly wanting in Palestine. In two hours we reached Yajus, where are the remains of a city or town finely situated in a fertile upland valley-plain. But little, however, is left, and the ruins tell no tale, consisting only of a few pieces of fine masonry, through which terebinths, 15 to 20 feet in circumference, have forced their way. An hour or so beyond this, we reached El Jabwâya, where are some more ruins;

sarcophagi, lintels, cornices lie strewn about; and from the hill a fine view is obtained over the Hauran, and the country towards Nablûs and Tiberias. Here we had lunch, washing it down with some fresh milk taken from goats that came opportunely within hail. Proceeding north we soon had a beautiful view across a valley called El Beja, on Gerash and the hills of Ajlun; Gerash could just be descried through our glasses. Passed through several wide valleys, or plains, mostly full of wheat, now showing the ear well. Beyond these, to the south-west, were ranges of hills, thickly clothed with forests of terebinth and holm-oak, extending for several miles. Crossing the deep Wady El Azrak and another ridge we reached Es-Salt at six p.m., finding ourselves during the latter part of our ride in company with a gradually accumulating crowd of Bedouins, flocks of goats, diminutive cattle, donkeys with the Arab ploughs on their backs, children, and dogs, all converging at evening to the sheltering cover of the town of Es-Salt. This day and yesterday we had seen enormous droves of camels, flocks of goats, and other signs of pastoral wealth. Arriving half an hour before sunset, we had just time to climb to the castle, garrisoned by Turkish soldiers; there is nothing in it of interest. It has a fine and commanding position—that, without much doubt, of the ancient frontier fortress Ramoth Gilead, which gave the kings of Israel so much trouble to conquer and to retain. The town, the first we had met with on the east of Jordan, is well built, and the environs well cultivated, with figs, olives, and pomegranates. It is also famed for its raisins. North of Es-Salt the population is more settled, and most of the towns are built of stone.

The next day, Tuesday, the 25th, we started to climb Jebel Osha, Mount Gilead. Threading some very pretty rocky glens and valleys, the lower portions of which were often terraced for vineyards, and the upper clothed with small trees and brushwood, we gained the summit in a little more than an hour. This is 3,470ft. above the sea. The tomb or wely of Neby Osha, the Prophet Hosea, after whom the mountain is now named, stands close by a magnificent holm-oak of great size. The view is exceedingly fine; no traveller should miss it. Looking across the Ghor, Ebal and Gerizim are clearly visible, and the whole of the country on the opposite side as far as Tiberias. On the right Jebel Ajlun bounded our view, and snow-capped Hermon still eluded us, though it is no doubt visible under favourable circumstances. To the left and behind us, south and east, lay the rolling highlands of Gilead, for the most part clothed with forests of oak, ilex, and terebinth. Having enjoyed this as long as we could, we descended nearly due east, and in a short time found ourselves in the direct road from Es-Salt to Gerash. This we did not intend to do, and it is a mistake. Travellers should insist upon getting down the hill somewhere nearly due north and passing by Jilad, Allân, and Shihân, a route apparently, from Dr. Tristram's description, much more picturesque than that which we followed. We passed through some open valleys and plains, rather bare, of which the most prominent and best cultivated is that

known as El-Beja (Al Bukâa ?). At the north-east corner of this we again entered a woody glen, and winding down Wady Român, and across a ridge at the head of it, descended into Wady Zerka, the valley of the ancient Jabbok. This is a fine wide valley, and forms the principal drain of Gilead; the scenery is not unlike parts of Wales and the Tyrol. Just before coming to our tents, pitched in a beautiful level meadow on the other side of the stream, a wild cat and a jackal gave us an exciting chase; a volley of shot at the dripping jackal across the river only made him shake his ears. We found the Zerka a rapid stream, only to be waded at certain spots; oleanders and other shrubs fringed its banks, and our meadow was full of the most luxuriant vegetation. Here we encamped by the grateful stream, in the country of Jephthah and on the borders of Sihon and Og. The night was fresh and beautiful.

Wednesday, April 26.—After a dip in the swift stream, we mounted the hills behind us, and in about an hour and a half found ourselves at Gerash. This is indeed a wonderful and magnificent ruin. Undevastated by the hand of man, all its main features distinctly traceable, many of the noble buildings standing, though partially ruined, two hundred and thirty columns still erect, baths, theatres, temples, circus, forum, triumphal arch, recalling with no effort of imagination its former splendour, it is glorious and striking—a glorious ruin, a striking desolation. Pompeii alone, of all the ruins that I have seen, may be compared to it. At every turn are picturesque subjects for sketches, at every corner food for reflection. The position of the city was very fine; situated on a sloping hill, in the middle of the highland about 2,000ft. above the sea, it was conspicuous and central. The line of the outer walls is clearly seen, and can be easily traced. Outside of them, to the south, at the end of a long street, was a triumphal arch. Passing on and through a gateway in the walls, we soon enter the forum, an oval space surrounded by Ionic columns, of which fifty-seven are still standing. From the end of this a street extends for half a mile, crossed by another at right angles, and these two were both colonnaded, many of the columns still remaining. Here and there are square blocks or courts, porticos, portions of temples or public buildings, with columns erect or prostrate by the score. One once fine temple, of which not a single column is now standing, stands on an eminence above the forum, overlooking this and the main street; it is of good proportions and exquisite finish, and when perfect must have been a beautiful and conspicuous object. Near it is the large theatre, still very perfect, as is also the smaller theatre at the other end of the town. Baths also there are, and a vast quantity of buildings of less note.

But the gem, the glory of the city, is the Temple of the Sun. This with its propylæa and peristyle must have been magnificent. The portico and cell of the temple itself are still nearly complete, eleven out of twelve of the huge columns still standing *in situ*. It was a rare treat to sit in the shadow of one of them, looking at the rich

sunlight lighting up the rest, and thinking of the scenes which those columns must have witnessed. The tide of civilised life had ebbed, rolled back, and left Gerash stranded on its shore. As we sat there in absolute stillness, the only inhabitants we could note were a chameleon which peeped out of a crack, and a little owl that flew out of the sanctuary. Truly this is one of the "cities not inhabited." Never have I seen anything more striking than this lone and desolate city; it is a wonderful scene of grandeur suddenly eclipsed.

We found several inscriptions, some of which we copied. In reference to that given in p. 389, we can corroborate λημης in line 2, and με θεον in line 3, though there are cracks in both places. In line 9 μετωπῳ is correct. Another of some interest is the following, of which, however, it is almost impossible to decipher the latter portion. It is in honour of a Christian martyr.

Δομος ειμι αεθλοφορου Θεοδωρου μαρτυρος αθαν (ατου) ωκεανῳ σωμα γαρ ενται . . . (εστι) ἡ ψυχη δ'εἰς ουρανον ευρυν αγγελθη (?) Τελεο εικατη ραον ερμ . . . . αγιρικ . . . . και νορπης και εωρμενο . . . . μαρτυριον ηωιατης . . . . ινα κἀνηλθεν ταπε (ινος ?) . . . .

In the evening Sheikh Jusuf of Suf came to volunteer his services and show us his testimonials; as we knew the value of both, we did not cultivate his acquaintance, but our dragoman gave him a retaining fee for the sake of peace and quietness. A moonlight stroll to the Forum, the Via Columnata, and the Temple of the Sun concluded our most delightful and interesting day at Gerash.

Thursday, April 27.—After one more stroll amongst the ruins, we left with regret the grand city; but we could afford no more time, for we were anxious to be at Nablûs by Sunday. Our ride this day was the most beautiful we had in Syria. The weather was delightful, sunny and balmy, and the views lovely at every turn. We began by mounting the hill behind Gerash, going nearly due west. Passing the village of Reimun, we skirted along the side of a hill, with the fine valley of Suf on our right, till we came to the village of that name. On our left as we rode along were groves of olives, backed by pines and fronted by green patches of wheat, or by the rich brown soil newly ploughed for sowing maize. On our right in the valley below was a good deal of cultivated land, with wheat, olives, figs, and pomegranates. Immediately beyond the village of Suf, a filthy place, we entered a lovely rocky glen, opening out here and there into wild and rough land which reminded us of many a spot in Wales and England. We then plunged into a fine forest of oaks, with a few firs and terebinths, and after crossing the ridge came down by the valley of Ajlun to the villages of Ain Jenna and Ajlun; all the villages here are built of stone. As we descended, going always north, the cultivation increased—pomegranates, olives, and figs predominating, while close to the village of Ain Jenna stand some noble walnut-trees, the most beautiful trees we had seen in Gilead. A mount of an hour from thence brought us to Kelat Er Rubud, a fine square castle surrounded by a moat, built by Saladin.

The view from the top of the castle is magnificent, finer, as it seemed

to us, than that from Jebel Osha; the air, however, was clearer. We could clearly discern the north end of the Dead Sea, as well as part of the Sea of Galilee, with the whole extent of the Jordan valley, the river gleaming here and there at its windings. In front of us, a little south of west, were Ebal and Gerizim, and directly opposite to us we could distinguish Mount Tabor, with the ridge of Carmel stretching into the far distance, and the wide plain of Esdraelon narrowing into the Wady Farrah, which debouches on the Ghor. Farther north we could see Jebel Safed behind the Sea of Galilee, and far away in the blue haze we were gladdened at last by the sight of the snow-sprinkled peaks of Hermon. It was a glorious panorama, embracing many points of interest, and withal most lovely in itself. We sat long enjoying it. Immediately in front were fine forests of oak, covering the rounded hills that trend down westwards towards the Ghor. Behind us lay the undulating heights of Gilead, the valleys of Kefrenjy and Zerka making wide landmarks.

Leaving Kelat er Rubud at 3 p.m. we scrambled down a very steep and rocky path, and leaving the town of Kefrenjy on our left, crossed the valley, and skirting its left side, wound down to our tents, which we reached at 5.30. The views in our descent were very pretty, and the country open, well wooded, and fertile. A good deal of the land was well cultivated, fig, olive, and carob trees telling of care and attention. Honeysuckle was in blossom, oleanders, and many other plants. Our camp was about half-way between Kelat er Rubud and the Ghor, perhaps 2,000ft. above the latter. Here, however, the tropical vegetation already began, as well as the thorns. Our tents being pitched near a marshy stream, mosquitoes and frogs were the order of the night; moorhens, mud-turtles, and molluscs invited aquatic researches; and an Arab rough made an unsuccessful attempt at burglary and felony, which failed through the vigilance of our guards. This was the solitary case of the kind during our whole trip; so much for the lawlessness of our poor friends the Bedouin.

Friday, April 28.—Made our way down the valley to the Ghor, which we reached in two hours; then had to ride along the bottom for three hours in a southerly direction to reach the ferry, which is nearly opposite Wady Zerka. The heat was great. Wheat is cultivated in small quantities, and we passed two palms and some mounds of ruins. The Ghor is here from eight to ten miles in breadth. The strata on the east side dip generally about here at an angle of 30° north-west, but in some places are nearly horizontal. At one o'clock we reached the ferry, and crossed over to the west side; with regret, for our trip on the east of Jordan was over. We had accomplished it most successfully; our dragoman, Abd-el-Hady, had managed very well for us, and all our own men had worked well and willingly; the Adwan had been most courteous and faithful; we had had lovely weather, and no contretemps or disagreeable incident had arisen to mar our perfect enjoyment. That night we camped in the Wady Farrah, and the next day rode at five o'clock into Nablûs.

A few words in conclusion. To any one who has accomplished it, a visit to the east of Jordan seems essential to the full comprehension of the "land flowing with milk and honey." If not a necessity, yet at least it is an immense help towards the realisation of that expression. The freshness and verdure which still exist in ancient Gilead are an index to the state of the whole country at the time of the conquest by Joshua. Its greater elevation no doubt made it always cooler, and better watered than the country west of Jordan; but the rocks and soil are generally identical, and, indeed, all the physical features. The fine forests about Jebel Osha tell how vigorously timber trees will grow, and the enormous population, evidenced by the remains of the great Roman cities, show that there was no difficulty in supplying nourishment for great numbers of inhabitants. Reuben and Gad were wise in asking for this district, but there were evidently forests and rich lands on "that side Jordan" also. A trip in Gilead is most refreshing after the dreary desolation of the wildernesses of Paran and of Judæa, and affords afterwards a most pleasing recollection of beauty of scenery and verdure hardly discoverable on the west, except at one or two favoured spots, such as Nablus and Carmel. The character of the Adwan, a fine type of Arabs, is well worthy of study; and the examination of the ruins, many of which have never been visited, full of interest. It is gratifying to think that this district will soon be thoroughly explored by the American branch of the Palestine Exploration Fund; but meanwhile every traveller who sees it, though he may not be able to add much or anything to the general knowledge of the country, may still learn something for himself, and will certainly have a most enjoyable trip. Appended is a list of the distances we rode, measured roughly by hours; considering the hills, the rocky paths, and occasional stoppages, three miles an hour will not be, I think, under the mark for a calculation of the mileage.

	h. m.
ân to the Ferry at the Jordan	2
Eastern bank to Nimrîn	2.30
Nimrîn to Sûr	2
Sûr to Arak el Emir	1.30
Arak el Emir to Camp above Wady Keferein	2
Camp above Wady Keferein to Jebel Jabûd	0.30
Jebel Jabûd to Wady Hesbân	2
Wady Hesbân to Jebel Nebba	3
Jebel Nebba to Town of Hesbân	1
Town of Hesbân to Ain Hesbân	1.30
Ain Hesbân to Um-al-Khanafish	1
Um-al-Khanafish to Jebel Naûr	0.40
Jebel Naûr to Um as Samâk	1
Um as Samâk to Jebel Tahîn	1
Jebel Tahîn to Ammân	1.30
Ammân to Yajûs	2
Yajûs to El Jubwayha	1.20
El Jubwayha to Es Salt	3
Es Salt to Jebel Osha	1.15
Jebel Osha to El Beja	2
El Beja to Zerka	2.30
Zerka to Gerash	1.20
Gerash to Sûf	1.30
Sûf to Kelat er Rûbûd	2
Kelat er Rûbûd to Camp below Wady Kefrenjy	2.30
Camp to Ghor	2
Along Ghor to Ferry at bottom of Wady Farrah	3

A. E. N.

RETURNS FROM FOREIGN STATIONS MADE TO THE SCOTTISH METEOROLOGICAL SOCIETY FOR QUARTER ENDING JUNE 30, 1871.

STATIONS AND OBSERVERS' NAMES.	Height of Station above the Sea.	1871.	BAROMETER.			SELF-REGISTERING THERMOMETERS. In Air, and protected.						HYGROMETER.		DEDUCTIONS. Glaisher's Tables, 2nd Edition.			WINDS. Number of Days it blew in certain Directions.									Mean Pressure on square foot.	RAIN.	
		Months.	Mean at Station corrected, and at 32°.	Mean reduced to 32°, and Sea-level.	Monthly Range.	Highest in Month.	Lowest in Month.	Monthly Range.	Mean of all the Highest.	Mean of all the Lowest.	Mean Daily Range.	Mean Temperature.	Dry Bulb.	Wet Bulb.	Dew-point.	Elastic Force of Vapour.	Humidity, Sat.=100.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm or Variable.		Number of Days it fell.	Amount.
																										lbs.	Days	In.
BEYROUT, (Syria.) S. JACKSON ELDRIDGE, ESQ., Consul-General for Syria.	160	April	29·756	29·926	0·350	73·0	57·0	16·0	68·3	60·3	8·0	64·3	65·4	61·6	58·5	·490	79	2	4	2	0	1	7	3	1	10	1·33	5	1·30
KARAK, (Cœle-Syria.) JOHN SCOTT RATTRAY, Esq.	(?)	April 1870	26·594	..	0·230	..	40·0	..	..	48·2	..	..	57·7	50·6	44·1	·289	61	1	0	1	1	6	14	5	2	0	..	5	0·56
JERUSALEM, (Syria.) THOS. CHAPLIN, Esq., M.D.	2500	Mar.	27·399	29·973	0·404	83·3	38·8	45·0	66·3	45·8	20·5	56·0	58·5	50·9	44·1	·290	59	1	1	2	10	2	5	6	4	0	0·28	9	3·99
		April	27·389	29·933	0·492	85·0	30·6	54·4	61·6	43·9	17·7	52·8	53·8	48·3	42·9	·276	67	0	0	4	5	1	6	6	9	0	0·76	13	3·71
		May	27·411	29·805	0·302	99·0	50·8	48·2	85·5	61·4	24·1	73·4	78·1	59·4	46·4	·315	33	3	7	5	2	0	1	2	11	0	0·22	0	0·00
		June	27·331	29·816	0·102	98·4	52·5	45·9	83·5	56·7	26·8	70·1	76·7	61·2	50·3	·365	39	10	4	0	1	0	0	4	11	0	0·30	0	0·00
Note.—On April 8th snow lay one and fourth-fifths of an inch deep where it was not drifted, in many places much deeper—a most unusual occurrence so late in the season.		July	27·255	29·715	0·180	98·2	53·0	45·2	87·1	59·0	28·1	73·0	79·6	64·3	54·7	·428	42	3	1	1	2	0	0	8	16	1	0·28	0	0·00
		Aug.	27·279	29·730	0·240	95·1	57·0	38·1	87·1	64·2	22·9	75·7	80·0	66·0	56·0	·455	44	3	3	1	2	1	3	4	14	0	0·09	0	0·00
		Sept.	27·401	29·885	0·270	100·0	50·6	49·4	84·1	59·8	24·3	72·0	75·8	63·3	54·4	·423	47	6	5	0	0	2	2	7	8	0	0·18	3	0·00
		Oct.	27·447	29·977	0·280	87·5	44·0	43·5	75·6	51·5	24·1	63·6	67·4	59·1	52·5	·397	59	5	1	2	2	1	3	2	14	0	0·03	4	2·29
		Nov.	27·543	30·093	0·344	82 0	40·8	41·2	70·7	49·3	20·4	60·0	63·6	52·0	42·4	·268	45	0	4	14	7	0	1	1	3	0	0·12	1	0·10
		Dec.	27·402	30·102	0·326	71·8	37·0	34·8	62·5	42·4	20·1	52·5	55·2	50·0	45·0	·301	69	1	3	5	4	2	7	4	5	0	0·05	4	1·45
		1871 Jan.	27·431	30·086	0·322	70·1	38·0	32·1	58·5	43·4	15·1	51·0	51·3	46·2	40·9	·257	68	1	6	4	3	1	4	6	6	0	0·20	9	2·94
		Feb.	27·454	30·080	0·450	68·0	30·0	38·0	53·3	38·5	14·8	45·9	47·9	42·4	36·3	·214	65	1	1	9	2	1	6	5	3	0	0·48	11	4·42

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NOTE FROM THE REV. J. NIEL.

A letter from the Rev. J. Niel, incumbent of Christ Church, Jerusalem, says:—"I have been so fortunate as to make some interesting discoveries in Tiberias two weeks ago. It should certainly be thoroughly explored. We found the ruins of the ancient city extending from the castle in the north to about a mile beyond the baths on the south—that is, for about two miles and a quarter, and extending most of the way from the shore to the abrupt hills which rise parallel to it." Mr. Niel has also forwarded copies of certain inscriptions which he has found in Galilee and elsewhere. It will be well for travellers to be careful how they purchase so-called ancient inscriptions, as the "carving of inscriptions in ancient character" has become a new and successful branch of industry in Jerusalem.

NOTE ON THE HAMATH INSCRIPTIONS.

BY HYDE CLARKE.

The Hamath inscriptions excite great interest, and as they will soon be in the hands of scholars, I think it may be useful to publish the results of a cursory examination. This I do, because while in some quarters it is believed these will prove to be ancient and valuable inscriptions, yet in others they are pronounced by men of high authority not to be inscriptions at all, but vagaries of ornamentation. It is likewise doubtful if, on the supposition that they are inscriptions, the characters are ideographs, syllabics, or letters.

My inspection has been, as stated, a cursory one of the copies in the hands of Captain R. F. Burton, and of the small portions printed by Mr. Wilson in the Journal of the American Palestine Fund. The results are consequently open to verification, but they are already sufficient to throw some light on the questions mooted. Thus it appears that the matter consists of recurrent symbols, and that it is presumably composed of characters. I estimated the number of characters at upwards of 500, but they may be found to be more, when the opportunity of careful analysis is obtained.

Of one of these types I found thirty-three examples, of one twenty-one, of two eighteen, and of others the proportions which would appear in an alphabet. Other reasons support this view.

Although there is a figure something like a man with a club and two hands, the bulk of the inscriptions are not ideographs or hieroglyphs, but characters. There appear to be double letters, and possibly ligatures and abbreviations, but so far as can be at present judged the characters are rather alphabetic than syllabic, though some may be found to be so. The hands are found in Himyaritic.

On examining the most frequent characters, I am disposed to assign five as the vowel-aspirates of the old alphabets. Using the most

FACSIMILE OF A PART OF THE HAMATH INSCRIPTIONS TAKEN FROM THE SQUEEZE & PHOTOGRAPH

convenient type symbols for the characters which are not available, these would be represented thus:—

÷	equal to	א, A, ע,	i.e.,	A	vowel	Kh	aspirate.
I	,,	ה	,,	E	,,	H	,,
⊖	,,	ו	,,	Oo	,,	Y	,,
U	,,	ו, U, V, O	,,	U	,,	V, F, Ph.	,,
O	,,	ע, O	,,	O	,,	W, Hw	,,

ϑ is probably S.

▽ appears to be D.

Other common forms include I I, I I I I, ך, ן, ∃, ץ, ⊥,]. These are sufficient to show elements of an alphabet, but many of them conform to the characters of the Himyaritic inscriptions, in which, as translated by Dr. M. Levy, I recognise as identical ע, ן, ב, ר, ר, ש, ש, ל, &c. The mode of writing is different in Hamath. The alphabet is in actual use in Abyssinia.

÷ thus gives us the type of א. This is not really connected with A, but is another type to be recognised in Aramaic, Italic, Palmyrene, and square Hebrew. ÷ is the analogue of א. If this be so, the א of the latter square alphabet has been borrowed from a source more ancient than A in the Phœnician and other alphabets. In Himyaritic I is a bar of division between words and ÷ sometimes assumes the same character.

⊖ appears as a new type, but is the analogue of the Phœnician, which has a corresponding form as in Greek, ε. It is the most frequent letter, occurring thirty-three times. This letter may also be recognised in Phœnician, Aramaic, Old Hellenic, Italic, and Palmyrene. It appears to possess a double form, one less frequent, in which a dot appears on each side of the bar.

U needs little comment; it occurs eighteen times. Its value is 100.

O occurs about ten times. Its value is perhaps 1,000.

The Hamath inscriptions confirm my former opinion that the alphabet as named by the Hebrews is not in its right order, and that the names are not the original names having the significations usually attributed to them, but are representatives of the ancient names, adopted to avoid idolatrous references. All the alphabets of the Hamath class are chiefly founded on the intersections of two crosses, still used by Rabbis, &c., as a secret alphabet.

The words or phrases appear to be read from top to bottom, and may then possibly return, as in boustrephedon and in Himyaritic.

The remains on comparison suggest that there are at least two inscriptions differing in character.

The inscriptions are of such antiquity that if on transliteration they do not conform to a Semitic rendering, I would suggest they should be tried for Georgian, the nearest representative of the Caucaso-Tibetan languages spoken in the region before the Semitic.